



# Hemchandracharya North Gujarat University

**PATAN- 384 265 (N.G.)**

**Accredited by NAAC with "A" Grade (CGPA 3.02)**

**1.2.2 University has adopted and implemented CBCS system of Education since 2011 in across all UG and PG programs.**

| SN. | Name of Program                            | Program Duration | Current Affiliation Status |
|-----|--|------------------|----------------------------|
|     |  |                  | Permanent/ Temporary       |
| 1   | MLiblSc (Library and Information Science)  | 1 Year           | Permanent                  |
| 2   | BLiblSc (Library and Information Science)  | 1 Year           | Permanent                  |
| 3   | MA (Journalism)                            | 1 Year           | Permanent                  |
| 4   | MCA (Computer Science)                     | 3 Years          | Permanent                  |
| 5   | MSW (Social Work)                          | 2 Years          | Permanent                  |
| 6   | BPEd (Physical Education)                  | 2 Years          | Permanent                  |
| 7   | MPEd (Physical Education)                  | 2 Years          | Permanent                  |
| 8   | LLM (Criminal Laws)                        | 2 Years          | Permanent                  |
| 9   | LLM (Business Laws)                        | 2 Years          | Permanent                  |
| 10  | LLM (Human Rights Laws)                    | 2 Years          | Permanent                  |
| 11  | BArch (Architecture)                       | 5 Years          | Permanent                  |
| 12  | MA (English Literature)                    | 2 Years          | Permanent                  |
| 13  | MA (Alankar Shastra)                       | 2 Years          | Permanent                  |
| 14  | MA (Vedant Shastra)                        | 2 Years          | Permanent                  |
| 15  | MA (Puran Shastra)                         | 2 Years          | Permanent                  |
| 16  | MSc (Biotechnology)                        | 2 Years          | Permanent                  |
| 17  | MSc (Physics)                              | 2 Years          | Permanent                  |
| 18  | MBA (Finance)                              | 2 Years          | Permanent                  |
| 19  | MBA (Marketing)                            | 2 Years          | Permanent                  |
| 20  | MCom (Accounting)                          | 2 Years          | Permanent                  |
| 21  | BBA (Management)                           | 3 Years          | Permanent                  |
| 22  | BCom (Commerce)                            | 3 Years          | Permanent                  |
| 23  | MSc (Mathematics)                          | 2 Years          | Permanent                  |
| 24  | MSc (Inorganic Chemistry)                  | 2 Years          | Permanent                  |
| 25  | MSc (Physical Chemistry)                   | 2 Years          | Permanent                  |
| 26  | MSc (Micro Biology)                        | 2 Years          | Permanent                  |
| 27  | MSc (Environment Science)                  | 2 Years          | Permanent                  |
| 28  | MSc (Zoology)                              | 2 Years          | Permanent                  |
| 29  | MSc (Botany)                               | 2 Years          | Permanent                  |
| 30  | PG Diploma (Medical Laboratory Technology) | 1 Years          | Permanent                  |
| 31  | PGDYED (Yoga Education)                    | 1 Years          | Permanent                  |
| 32  | MSc (Electronics)                          | 2 Years          | Permanent                  |
| 33  | MSc (Organic Chemistry)                    | 2 Year           | Permanent                  |
| 34  | MHM (Hospital Management)                  | 2 Year           | Permanent                  |

➤ M.Phil. Programs are discontinued by UGC from 2020



*Handwritten initials: B 6 2*  
Vc. Registrar  
Hemchandracharya  
North Gujarat University, Patan



# Hemchandracharya North Gujarat University

**PATAN- 384 265 (N.G.)**

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## CERTIFICATE

University has adopted and implemented CBCS system of Education since 2011 in across all UG and PG programs via.

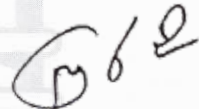
Resolution No.10 of the meeting of the Academic Council Dated:

03/06/2010.

Date : 09/01/2023

Place : Patan



  
Vc. Registrar  
Hemchandracharya  
North Gujarat University, Patan

पावका नः सरस्वती



# Hemchandracharya North Gujarat University, Patan

Accredited by NAAC with "A" Grade (CGPA 3.02)

University Road, Patan (N.G.) – 384 265

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## English Translated Circular

### Circular No -166/2011

The following report prepared by the sub-committee appointed vide **Resolution No-10 of the meeting of the Academic Council of the University dated: 03/06/2010** for the purpose of maintaining uniform grading pattern at the undergraduate and postgraduate level in all the faculties of this University has been approved by the Vice-Chancellor on behalf of the Academic Council. Which is informed to the concerned. Since Semester / CBCS / Grading Pattern is implemented in this **University from June-2011** at Graduate and Post Graduate level, it is requested to strictly implement it at Graduate and Post Graduate level.

The teachers and students are requested to inform about this matter from our level.

Applicable disciplines :-

Arts, Commerce, Science, Management studies, Rural Studies, Film & Television and Home science

Grading Pattern :

| Grade Points | Description | % of marks | Division/Grade     |
|--------------|-------------|------------|--------------------|
| 10           | Outstanding | 90% - 99%  | First with Dist/ 0 |
| 9            | Excellent   | 80% - 89%  | First with Dist/ A |
| 8            | Very good   | 70% - 79%  | First with Dist/B  |
| 7            | Good        | 60% - 69%  | First/C            |
| 6            | Fair        | 50% - 59%  | Second/D           |
| 5            | Average     | 40% - 49%  | Pass/E             |
| 4            | DROPPED     | Below 40%  | F                  |

F = Dropped ( < 40%)

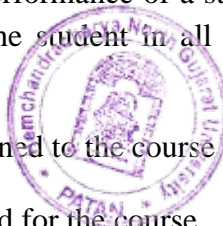
The Percent of marks taken into consideration includes marks of component I, II and III of each semester

Semester Grade Point Average (SGPA) Indicates the performance of a student in a given semester SGPA is based on the total credit points earned by the student in all the courses and the total number of credits assigned to each course in a semester

Credit point for the Course = No. of credits assigned to the course

×

Grade point secured for the course



**For Example: Semester – I**

| Course             | Credit    | Marks Obtained by Students | Grade Letter | Grade Point | Credit Assigned Grade Point |
|--------------------|-----------|----------------------------|--------------|-------------|-----------------------------|
| Core Comp.         | 4         | 60                         | C            | 7           | 7×4 = 28                    |
| Core Allied        | 4         | 55                         | D            | 6           | 6×4 = 24                    |
| Elective Generic   | 4         | 65                         | C            | 7           | 7×4 = 28                    |
| Elective Option    | 4         | 70                         | B            | 8           | 8×4 = 32                    |
| Foundation Generic | 2         | 40                         | E            | 5           | 5×2 =10                     |
| <b>Total</b>       | <b>18</b> |                            |              |             | <b>122</b>                  |

$$SGPA = 122/18 = 6.778$$

Thus SGPA for Semester – 1 is 6.778

Percentage for Semester 1 is  $6.778 \times 10 = 67.78$

Cumulative grade point average (CGPA) is Obtained by dividing the total numbers of credit points earned in all the Semester by the total number of credit in all Semester

**For Example :**

|              |       |        |       |            |
|--------------|-------|--------|-------|------------|
| Semester-I   | Total | Credit | Point | 122        |
| Semester-II  | Total | Credit | Point | 116        |
| Semester-III | Total | Credit | Point | 130        |
| Semester-IV  | Total | Credit | Point | 110        |
| <b>Total</b> |       |        |       | <b>478</b> |

$$CGPA = 478/72 = 6.639$$

Percentage for entire course is  $6.639 \times 10 = 66.39$

Grade C.Division First.

The Class /Division shall be awarded on the basis of CGPA Cumulative Grade Point Average

| No | Division                        | Grade Letter | Grade Point   |
|----|---------------------------------|--------------|---------------|
| 1  | First Division with Distinction | O – CGPA     | 9.00 to 10.00 |
| 2  | First Division with Distinction | A – CGPA     | 8.00 to 8.99  |
| 3  | First Division with Distinction | B – CGPA     | 7.00 to 07.99 |
| 4  | First                           | C – CGPA     | 6.00 to 06.99 |
| 5  | Second                          | D – CGPA     | 5.00 to 05.99 |
| 6  | Pass                            | E – CGPA     | 4.00 to 04.99 |
| 7  | Dropped                         | F – Below    | 4.00          |

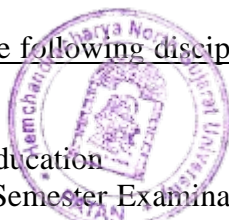
The Percentage equivalent may be obtained by multiplying CGPA by 10.

Note :-

Grading pattern has to be followed for the following disciplines as per the prescribed norms of the respective councils.

Law, Medicin, Pharmacy, Engineering, Education

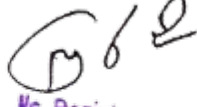
The passing standard for the end Semester Examination shall be 40% in all faculties except Medicine, Pharmacy, Engineering, Law and Education, Where a part from Securing 40%



(Minimum) in each head a student has to secure 50% aggregate marks in th final Semester. In case student does not get aggregate 50% marks. He/She will be eligible for exemption in those subject (Courses) in which He?She Secure 50% marks and he/she has to appear in the examination n which he/she has secured less than 50% marks.

Out.No:Aca/BOS/4035/2011  
University Road, Po.Box.No-21  
Patan, - 384265 (N.G.)  
Date : 27/06/2011



Sd/-  
For.Assi.Registrar  
  
Vc. Registrar  
Hemchandracharya  
North Gujarat University, Patan

To,

1. Head/Co-ordinators all the depaetment of this university
2. Principals of affiliated colleges of this university
3. All the chairman of BOS Committee of this university
4. All the Ad.Committee Chairman of this university
5. Controller of Examinations, HNGU, Patan (5-Copy)
6. Incharge Computer(Result) Center,HNGU,Patan,For Result and Put on the uni. Website
7. Establishment Branch, HNGU, Patan For Circular File

- The Scheme of Papers & Examination Pattern for one Year M.L.I.Sc. Course (System Semester) shall be as follows:

## Semester – I

| Paper No.   | Name of the Paper   | Theory     | Practical  | Examination Marks |  | Total Marks | Exam Time |
|---|---|------------|------------|-------------------|--|-------------|-----------|
|   |   |            |            | Ext.              | Literature (Print/Non Print) Review – 05<br>Assignments - 05<br>Library Work Training - 10<br>Internal Exam – 10<br>(5+5+10+10=30) |             |           |
| 101<br>Core   | Information and Communication   | 100        | -          | 70                | 30   | 100         | 3 Hrs     |
| 102<br>Core   | Information Technology Application (Theory)   | 100        | -          | 70                | 30   | 100         | 3 Hrs     |
| 103<br>Core   | Information Technology Application (Practice)   | -          | 100        | 70                | - Internal Exam - 10<br>- Project Work - 10<br>- <u>Viva Voce</u> - 10<br>30   | 100         | 3 Hrs     |
| 104 - A<br><br>OR<br>104 - B<br><br>OR<br>104 - C<br><br>Elective | Higher Education and Academic Library System<br><b>OR</b><br>Public Library and Library Network System<br><b>OR</b><br>Special Library and Information Network System | 100        | -          | 70                | 30   | 100         | 3 Hrs     |
| 105 - A<br><br>OR<br>105 - B<br>Interdisciplinary                 | Research Methodology & Statistical Techniques<br><b>OR</b><br>Communication & Technical Writing Skills  | 100        | -          | 70                | 30   | 100         | 3 Hrs     |
| <b>Total Semester – I</b>   |   | <b>400</b> | <b>100</b> | <b>350</b>        | <b>150</b>   | <b>500</b>  |           |

Note:

- ❖ Per Week two Hours Library work training is essential.



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## Semester – II

| Paper No.   | Name of the Paper   | Theory     | Practical  | Examination Marks |  | Total Marks | Exam Time |
|---|---|------------|------------|-------------------|--|-------------|-----------|
|   |   |            |            | Ext.              | Assignments -05<br>Seminar – 05<br>Library Work<br>Training - 10<br>Internal Exam – 10<br>(5+5+10+10=30) |             |           |
| 201<br>Core   | Information Analysis, Repackaging and Consolidation   | 100        | -          | 70                | 30   | 100         | 3 Hrs     |
| 202<br>Core   | Subject Analysis and Information Retrieval  | 100        | -          | 70                | 30   | 100         | 3 Hrs     |
| 203<br>Core   | Dissertation / Project Works  |            | 100        | 70+30             | -  | 100         | -         |
| 204 - A<br><br>OR<br>204 - B<br><br>OR<br>204 - C<br>Elective | Digital Information Management (Digital Library)<br><b>OR</b><br>Content Management System (Theory and Practical)<br><b>OR</b><br>Data Communication and Networking | 100        |            | 70                | 30   | 100         | 3 Hrs     |
| 205 - A<br><br>OR<br>205 - B<br>Interdisciplinary             | Personality Development & Soft Skill<br><b>OR</b><br>Statistical Application in Libraries   | 100        | -          | 70                | 30   | 100         | 3 Hrs     |
| <b>Total Semester – II</b>                                    |   | <b>400</b> | <b>100</b> | <b>380</b>        | <b>120</b>   | <b>500</b>  |           |

Note:

- ❖ Per Week two hours Library Work training is essential.
- ❖ Internship is Compulsory (15 days)



*Signature*  
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 North Gujarat University  
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**The Scheme of Papers & Examination Pattern for one year B.L.I.Sc. Programme LOCF (CBCS Semester System) shall be as follows**

## Semester – I

| Paper No.                 | Name of the Paper  | Credits   | Theory   | Practical | Internal Marks |  | Total Marks | Exam Time  |
|---------------------------|--|-----------|----------|-----------|----------------|--|-------------|------------|
|                           |  |           |          |           | Ext.           | Literature Review- 5<br>Assignment – 5<br>Library Work Training-10<br>Internal Exam – 10<br>(5+5+10+10=30) |             |            |
| BL - C11                  | Foundation of Library and Information Science  | 4         | 100      | -         | 70             | 30   | 100         | 2:30 Hours |
| BL - C12                  | Library Management   | 4         | 100      | -         | 70             | 30   | 100         | 2:30 Hours |
| BL - C13                  | Information Sources, Systems and Services (Theory)                                   | 4         | 100      | -         | 70             | 30   | 100         | 2:30 Hours |
| BL - C14                  | Knowledge Organization: Classification (Theory) DDC-22 & CC-6                        | 4         | 100      | -         | 70             | 30   | 100         | 2:30 Hours |
| BL - C15                  | Knowledge Organization: Classification (Practice) DDC-22 & CC-6                      | 4         | -        | 100       | -              | -  | 100         | 2:30 Hours |
| BL- GE 1                  | <b>Generic Elective (GE)</b><br>Information Sources, Systems and Services (Practice) | 4         | -        | 100       | -              | -  | 100         | 2:30 Hours |
|                           | <b>OR</b><br>Library Education   | -         | 100      | -         | 70             | 30   | 100         | 2:30 Hours |
| <b>Total Semester – I</b> |  | <b>24</b> | <b>-</b> | <b>-</b>  |                |  | <b>600</b>  |            |

- Internship of 10-Day duration constitutes the B.L.I.Sc. Programme
- Library Visit Tour



  
**I/c. Registrar**  
**Hemchandracharya**  
**North Gujarat University**  
**PATAN**



**Hemchandracharya North Gujarat University, Patan**  
**Department of Library & Information Science**  
**Bachelor of Library & Information Science**  
**Semester – II**

| Paper No. | Name of the Paper  | Total Marks<br>Ext+ Int. = Total | Passing<br>Standard<br>Ext+ Int. = Total | Total<br>Teaching<br>Hour | Weekly Teaching Hours | Credits | Exam<br>Hrs.  |
|-----------|--|----------------------------------|--|---------------------------|-----------------------|---------|---------------|
| BL- C21   | Knowledge Organization:<br>Cataloguing (Theory)  | 70+30=100                        | 28+12=40                                 | 15 Weeks x 5<br>Hours=75  | 6 Days x 5 Hours = 30 | 4       | 2:30<br>Hours |
| BL- C22   | Knowledge Organization:<br>Cataloguing (Practical)                                     | 100                              | 40                                       | 15 Weeks x 5<br>Hours=75  | 6 Days x 5 Hours = 30 | 4       | 2:30<br>Hours |
| BL- C23   | Basics of Information and<br>Communication Technology<br>(Theory)                      | 70+30=100                        | 28+12=40                                 | 15 Weeks x 5<br>Hours=75  | 6 Days x 5 Hours = 30 | 4       | 2:30<br>Hours |
| BL- C24   | Basics of Information and<br>Communication Technology<br>(Practice)                    | 100                              | 40                                       | 15 Weeks x 5<br>Hours=75  | 6 Days x 5 Hours = 30 | 4       | 2:30<br>Hours |
| BL- DSE I | <b>Discipline Specific Elective<br/>(DSE)</b><br>1. School Library and<br>Media Centre | 70+30=100                        | 28+12=40                                 | 15 Weeks x 5<br>Hours=75  | 6 Days x 5 Hours = 30 | 4       | 2:30<br>Hours |
|           | 2. Public Library and<br>Information System  | 70+30=100                        | 28+12=40                                 | 15 Weeks x 5<br>Hours=75  | 6 Days x 5 Hours = 30 | 4       | 2:30<br>Hours |
|           | 3. Project work:<br>Literature Survey and<br>Field Work                                | 70+30=100<br>( Viva)             | 28+12=40                                 | 15 Weeks x 5<br>Hours=75  | 6 Days x 5 Hours = 30 | 4       | 2:30<br>Hours |

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**North Gujarat University**  
**PATAN**

# Semester: I

## STRUCTURE

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY

PROGRAMME: MJMC (GENERAL) (2 Years)

Syllabus with effect from: June -2019

| Course Code | Name of Subject                          | T / P | Credit | Exam Duration in Hrs | Components of Marks |          |       |
|-------------|--|-------|--------|----------------------|---------------------|----------|-------|
|             |  |       |        |                      | Internal            | External | Total |
| MJ 101      | HISTORY OF MASS MEDIA                    | T     | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 102      | WRITING & REPORTING FOR MEDIA            | T     | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 103      | CURRENT AFFAIRS AND LANGUAGE PROFICIENCY | T     | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 111      | PHOTO JOURNALISM                         | T     | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 122      | MASS MEDIA & SOCIETY                     | T     | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 112      | SPORTS JOURNALISM                        | T     | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 121      | VALUES & SPIRITUALITY                    | T     | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 123      | HUMAN RIGHTS & MEDIA                     | T     | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 113      | BUSINESS & FINANCIAL JOURNALISM          | T     | 4      | 2.5                  | 30                  | 70       | 100   |
|             |  |       | 24     |                      |                     |          |       |

# Semester: II

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY

PROGRAM: MJMC (GENERAL) (2 Years)

Syllabus with effect from: December -2019

| Course Code | Name of Subject                  | T/P | Credit | Exam Duration in Hrs | Components of Marks |                |       |
|-------------|----------------------------------|-----|--------|----------------------|---------------------|----------------|-------|
|             |                                  |     |        |                      | Internal            | External       | Total |
| MJ 201      | PRINCIPLES OF MASS COMMUNICATION | T   | 4      | 2.5                  | 30                  | 70             | 100   |
| MJ 202      | NEWS & MAGAZINE EDITING          | T   | 4      | 2.5                  | 30                  | 70             | 100   |
| MJ 203      | COMPUTER APPLICATION             | T/P | 2T,2P  | 2                    | 30                  | 50 + 20 (viva) | 100   |
| MJ 211      | RURAL COMMUNICATION              | T   | 4      | 2.5                  | 30                  | 70             | 100   |
| MJ 221      | CYBER MEDIA                      | T   | 4      | 2.5                  | 30                  | 70             | 100   |
| MJ 212      | PAGE DESIGNING & PRINTING        | T   | 4      | 2.5                  | 30                  | 70             | 100   |
| MJ 213      | DEVELOPMENT COMMUNICATION        | T   | 4      | 2.5                  | 30                  | 70             | 100   |
| MJ 223      | DESKTOP PUBLISHING               | T   | 4      | 2.5                  | 30                  | 70             | 100   |
| MJ 223      | POLITICAL JOURNALISM             | T   | 4      | 2.5                  | 30                  | 70             | 100   |
|             |                                  |     | 24     |                      |                     |                |       |

\* Field / Media house visits are integral part of subjects in this semester.

# Semester: III

## STRUCTURE

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY

PROGRAM: MJMC (GENERAL) (2 Years)

Syllabus with effect from: June -2020

| Course Code | Name of Subject                       | T/P | Credit | Exam Duration in Hrs | Components of Marks |          |       |
|-------------|---------------------------------------|-----|--------|----------------------|---------------------|----------|-------|
|             |                                       |     |        |                      | Internal            | External | Total |
| MJ 301      | AUDIO-VISUAL COMMUNICATION TECHNOLOGY | T   | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 302      | COMMUNICATION RESEARCH METHODOLOGY    | T   | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 303      | PUBLIC RELATION & ADVERTISEMENT       | T   | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 311      | FILM STUDIES                          | T   | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 312      | PRINTING PRODUCTION & MANAGEMENT      | T   | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 313      | FEATURE JOURNALISM                    | T   | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 321      | GENDER & MEDIA                        | T   | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 322      | SCIENCE & TECHNOLOGY COMMUNICATION    | T   | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 323      | SCRIPT WRITING                        | T   | 4      | 2.5                  | 30                  | 70       | 100   |
|             |                                       |     | 24     |                      |                     |          |       |

\*Students are suggested to undergo kinds of activities/project like Documetry, shortfilm etc during this semester.

# Semester: IV

## STRUCTURE

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY

PROGRAM: MJMC (GENERAL) (2 Years)

Syllabus with effect from: December -2020

| Course Code | Name of Subject                                   | T/<br>P | Credit | Exam Duration in Hrs | Components of Marks |          |       |
|-------------|---|---------|--------|----------------------|---------------------|----------|-------|
|             |   |         |        |                      | Internal            | External | Total |
| MJ 401      | PRINCIPLES OF MASS COMMUNICATION MEDIA MANAGEMENT | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 402      | MEDIA LAW & ETHICS                                | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 403      | DISSERTATION                                      | P       | 4      | -                    | -                   | 100      | 100   |
| MJ 411      | ENVIRONMENTAL COMMUNICATION                       | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 412      | TRADITIONAL COMMUNICATION                         | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 413      | AGRICULTURAL JOURNALISM                           | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 421      | HISTORY OF FOLK ART & CULTURE                     | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 422      | COMMUNICATION IN DISASTER                         | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| MJ 423      | INTER - CULTURAL COMMUNICATION                    | T       | 4      | 2.5                  | 30                  | 70       | 100   |
|             |   |         | 24     |                      |                     |          |       |

**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**SEMESTER CBCS**

**MCA SEMESTER- I**  
**PROGRAM CODE : HNGU 2184**

| Sub. No.     | Subject Name                         | Teaching Scheme |                       |                          | Examination Scheme |                |                |                |                |                   |
|--------------|--------------------------------------|-----------------|-----------------------|--------------------------|--------------------|----------------|----------------|----------------|----------------|-------------------|
|              |                                      | Total Credit    | Theory                | Practical                | Internal Marks     |                | External Marks |                | Total Marks    |                   |
|              |                                      |                 | Lectures Hours / Week | Per Batch * Hours / Week | Theory (IT)        | Practical (IP) | Theory (ET)    | Practical (EP) | Theory (IT+ET) | Practical (IP+EP) |
| MCA-11       | Mathematics - I                      | 4               | 4                     | --                       | 30                 | --             | 70             | --             | 100            | --                |
| MCA-12       | Financial Accounting & Management    | 4               | 4                     | --                       | 30                 | --             | 70             | --             | 100            | --                |
| MCA-13       | Introduction to Programming Language | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA-14       | Internet & Web-I                     | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA-15       | Database Management System           | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| <b>Total</b> |                                      | <b>20</b>       | <b>14</b>             | <b>6</b>                 | <b>--</b>          | <b>--</b>      | <b>--</b>      | <b>--</b>      | <b>500</b>     | <b>150</b>        |

Note : \* Indicates 60 students batch per practical.

IT – Internal Theory

IP – Internal Practical

ET – External Theory

EP – External Practical



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**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN**  
**DEPARTMENT OF COMPUTER SCIENCE**

**SEMESTER CBCS**

**MCA SEMESTER- II**  
**PROGRAM CODE : HNGU 2184**

| Sub. No.     | Subject Name                                      | Teaching Scheme |                       |                          | Examination Scheme |                |                |                |                |                   |
|--------------|---|-----------------|-----------------------|--------------------------|--------------------|----------------|----------------|----------------|----------------|-------------------|
|              |   | Total Credit    | Theory                | Practical                | Internal Marks     |                | External Marks |                | Total Marks    |                   |
|              |   |                 | Lectures Hours / Week | Per Batch * Hours / Week | Theory (IT)        | Practical (IP) | Theory (ET)    | Practical (EP) | Theory (IT+ET) | Practical (IP+EP) |
| MCA-21       | Computer Oriented Numerical & Statistical Methods | 4               | 4                     | --                       | 30                 | --             | 70             | --             | 100            | --                |
| MCA-22       | Software Engineering                              | 4               | 4                     | --                       | 30                 | --             | 70             | --             | 100            | --                |
| MCA-23       | Operating System & UNIX                           | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA-24       | Object Technology - I                             | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA-25       | Advanced Database Architecture                    | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| <b>Total</b> |   | <b>20</b>       | <b>14</b>             | <b>6</b>                 | <b>--</b>          | <b>--</b>      | <b>--</b>      | <b>--</b>      | <b>500</b>     | <b>150</b>        |

Note : \* Indicates 60 students batch per practical.

**IT** – Internal Theory

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**DEPARTMENT OF COMPUTER SCIENCE**  
**SEMESTER CBCS**

**MCA SEMESTER- III**  
**PROGRAM CODE : HNGU 2184**

| Sub. No.     | Subject Name                       | Teaching Scheme |                       |                          | Examination Scheme |                |                |                |                |                   |
|--------------|------------------------------------|-----------------|-----------------------|--------------------------|--------------------|----------------|----------------|----------------|----------------|-------------------|
|              |                                    | Total Credit    | Theory                | Practical                | Internal Marks     |                | External Marks |                | Total Marks    |                   |
|              |                                    |                 | Lectures Hours / Week | Per Batch * Hours / Week | Theory (IT)        | Practical (IP) | Theory (ET)    | Practical (EP) | Theory (IT+ET) | Practical (IP+EP) |
| MCA-31       | Computer Based Optimization Models | 4               | 4                     | --                       | 30                 |                | 70             | --             | 100            | --                |
| MCA-32       | Networking – I                     | 4               | 4                     | --                       | 30                 | --             | 70             | --             | 100            | --                |
| MCA-33       | Introduction to Algorithms         | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA-34       | Advance Java Technology[J2EE]      | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA-35       | Web Development using PHP          | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| <b>Total</b> |                                    | <b>20</b>       | <b>14</b>             | <b>6</b>                 | <b>--</b>          | <b>--</b>      | <b>--</b>      | <b>--</b>      | <b>500</b>     | <b>150</b>        |

Note : \* Indicates 60 students batch per practical.

**IT** – Internal Theory

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**DEPARTMENT OF COMPUTER SCIENCE**

**SEMESTER CBCS**

**MCA SEMESTER- IV**  
**PROGRAM CODE : HNGU 2184**

| Sub. No.     | Subject Name                              | Teaching Scheme |                       |                          | Examination Scheme |                |                |                |                |                   |
|--------------|---|-----------------|-----------------------|--------------------------|--------------------|----------------|----------------|----------------|----------------|-------------------|
|              |   | Total Credit    | Theory                | Practical                | Internal Marks     |                | External Marks |                | Total Marks    |                   |
|              |   |                 | Lectures Hours / Week | Per Batch * Hours / Week | Theory (IT)        | Practical (IP) | Theory (ET)    | Practical (EP) | Theory (IT+ET) | Practical (IP+EP) |
| MCA-41       | Personality Development and Aptitude Test | 4               | 4                     | --                       | 20                 | 10 (Viva)      | 50             | 20 (Viva)      | 70             | 30 (Viva)         |
| MCA-42       | Networking – II                           | 4               | 4                     | --                       | 30                 | --             | 70             | --             | 100            | --                |
| MCA-43       | Advance Web Technology – I                | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA-44       | Computer Graphics                         | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA-45       | Computer Security                         | 4               | 2                     | 2                        | 30                 | 20             | 70             | 30             | 100            | 50                |
| <b>Total</b> |   | <b>20</b>       | <b>14</b>             | <b>6</b>                 | <b>--</b>          | <b>--</b>      | <b>--</b>      | <b>--</b>      | <b>470</b>     | <b>180</b>        |

Note : \* Indicates 60 students batch per practical.

**IT** – Internal Theory      **IP** – Internal Practical  
**ET** – External Theory      **EP** – External Practical



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**DEPARTMENT OF COMPUTER SCIENCE**

**SEMESTER CBCS**

**M C A SEMESTER – V**

| Sub. No.     | Subject Name                                | Teaching Scheme |                       |                        | Examination Scheme |                |                |                |                |                   |
|--------------|---|-----------------|-----------------------|------------------------|--------------------|----------------|----------------|----------------|----------------|-------------------|
|              |   | Total Credit    | Theory                | Practical              | Internal Marks     |                | External Marks |                | Total Marks    |                   |
|              |   |                 | Lectures Hours / Week | Per Batch Hours / Week | Theory (IT)        | Practical (IP) | Theory (ET)    | Practical (EP) | Theory (IT+ET) | Practical (IP+EP) |
| MCA – 51     | Project Management Practices and Evaluation | 4               | 4                     | --                     | 30                 | --             | 70             | --             | 100            | --                |
| MCA – 52     | Mobile Applications                         | 4               | 2                     | 2                      | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA – 53     | Cloud Computing                             | 4               | 2                     | 2                      | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA – 54     | Elective - I                                | 4               | 2                     | 2                      | 30                 | 20             | 70             | 30             | 100            | 50                |
| MCA - 55     | Elective - II                               | 4               | 2                     | 2                      | 30                 | 20             | 70             | 30             | 100            | 50                |
| <b>Total</b> |   | <b>20</b>       | <b>12</b>             | <b>8</b>               | <b>--</b>          | <b>--</b>      | <b>--</b>      | <b>--</b>      | <b>500</b>     | <b>200</b>        |

\* IT – Internal Theory      IP – Internal Practical  
 ET – External Theory      EP – External Practical

**List of Elective Subjects:**

- |  |   |
|--|---|
| 1 DSS with Artificial Intelligence<br>2 Object Oriented Analysis & Design<br>3 Wireless Technology<br>4 Human Computer Interaction & Interface Design<br>5 Compiler Design | 6 Digital Image Processing<br>7 Embedded Systems<br>8 Advance Web Technology – II<br>9 Theory of Automata & Formal Language |
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**DEPARTMENT OF COMPUTER SCIENCE**

**SEMESTER CBCS**

**M C A SEMESTER – VI**

| Subject Name               | Teaching Scheme |  |                           | Examination Scheme  |           |  |            | Total Marks |
|----------------------------|-----------------|--|---------------------------|---|-----------|--|------------|-------------|
|                            | Total Credit    | Theory   | Practical                 | Internal Marks  |           | External Marks<br>( Including Industry marks )   |            |             |
|                            |                 | Lectures<br>Hours / Week                                 | Per Batch<br>Hours / Week | Theory  | Practical | Theory   | Practical  |             |
| System Development Project | 20              | 05 Full months<br>05 days per week<br>and 05 hours a day |                           | 1 <sup>st</sup> Progress Report – 50<br>2 <sup>nd</sup> Progress Report – 50<br>3 <sup>rd</sup> Progress Report – 100 |           | From external organization – 100<br>( Industry marks )<br>Final Viva, Presentation – 300 |            |             |
| <b>Total</b>               | <b>20</b>       |  |                           | <b>200</b>  |           | <b>400</b>   | <b>600</b> |             |



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| MSW SEM: I    |  |                      |          |       |        |
|---------------|--|----------------------|----------|-------|--------|
| PAPER NO      | NAME OF SUBJECT  | EVELUATION WEIGHTAGE |          |       | CREDIT |
|               |  | INTERNAL             | EXTERNAL | TOTAL |        |
| MSW C 111     | HISTORY AND PHILOSOPHY OF SOCIAL WORK  | 30                   | 70       | 100   | 3      |
| MSW C 112     | SOCIAL CASE WORK   | 30                   | 70       | 100   | 3      |
| MSW C 113     | SOCIAL GROUP WORK  | 30                   | 70       | 100   | 3      |
| MSW C 114     | FIELD WORK PRACTICE  | 60                   | 140      | 200   | 6      |
| MSW C 115     | INTRODUCTION TO PC PACKAGES-I  |                      | 50       | 50    | 2      |
| MSW E 116*    | INTRODUCTION TO SOCIAL SCIENCE   | 30                   | 70       | 100   | 3      |
| MSW E 117*    | HUMAN GROWTH & BEHAVIOUR   |                      |          |       |        |
| MSW E 118*    | POLITICAL ECONOMI OF DEVELOPMENT   |                      |          |       |        |
|               | TOTAL  | 180                  | 470      | 650   | 20     |
| MSW SEM : II  |  |                      |          |       |        |
| PAPER NO      | NAME OF SUBJECT  | EVELUATION WEIGHTAGE |          |       | CREDIT |
|               |  | INTERN.              | EXTERN   | TOTAL |        |
| MSW C 211     | COMMUNITY ORGANIZATION   | 30                   | 70       | 100   | 3      |
| MSW C 212     | SOCIAL WORK RESEARCH & STATISTICS  | 30                   | 70       | 100   | 3      |
| MSW C 213     | PERSONAL & PROFESSIONAL DEVELOPMENT IN SOCIAL WORK PRACTICE                                      | 30                   | 70       | 100   | 3      |
| MSW C 214     | NGO & GOVERNMENT FIELD WORK  | 60                   | 140      | 200   | 6      |
| MSW C 215     | TRIBLE CAMP  |                      | 50       | 50    | 2      |
| MSW E 216*    | INTRODUCTION TO FILDE OF SOCIAL WORK   | 30                   | 70       | 100   | 3      |
| MSW E 217*    | FAMILY CHILD AND YOUTH WELFARE   |                      |          |       |        |
| MSW E 218*    | URBAN AND RURAL COMMUNITY DEVELOPMENT  |                      |          |       |        |
|               | TOTAL  | 180                  | 470      | 650   | 20     |
| MSW SEM : III |  |                      |          |       |        |
| PAPER NO      | NAME OF SUBJECT  | EVELUATION WEIGHTAGE |          |       | CREDIT |
|               |  | INTERN.              | EXTERN   | TOTAL |        |
| MSW C 311     | LABOUR WELFARE AND HUMAN RESOURCE MANAGEMENT   | 30                   | 70       | 100   | 3      |
| MSW C 312     | HEALTH CARE & SOCIAL WORK PRACTICE   | 30                   | 70       | 100   | 3      |
| MSW C 313     | COUNSELING THEORY & PRACTICE   | 30                   | 70       | 100   | 3      |
| MSW C 314     | BLOCK PLACEMENT  | 60                   | 140      | 200   | 6      |
| MSW C 315     | INTRODUCTION TO PC PACKAGES-II   |                      | 50       | 50    | 2      |
| MSW E 316*    | GENDER AND DEVELOPMENT   | 30                   | 70       | 100   | 3      |
| MSW E 317*    | LABOURLEGISLATION  |                      |          |       |        |
| MSW E 318*    | FUNDAMENTAL OF MANAGEMENT  |                      |          |       |        |
|               | TOTAL  | 180                  | 470      | 650   | 20     |
| MSW SEM: IV   |  |                      |          |       |        |
| PAPER NO      | NAME OF SUBJECT  | EVELUATION WEIGHTAGE |          |       | CREDIT |
|               |  | INTERN.              | EXTERN   | TOTAL |        |
| MSW C 411     | SOCIAL WORK AND DISASTER MANAGEMENT  | 30                   | 70       | 100   | 3      |
| MSW C 412     | ORGANIZATIONAL BEHAVIOUR   | 30                   | 70       | 100   | 3      |
| MSW C 413     | SOCIAL DEFENCE & CORRCTIONAL SERVICES  | 30                   | 70       | 100   | 3      |
| MSW C 414     | RESEARCH REPORT  | 60                   | 140      | 200   | 6      |
| MSW C 415     | INTRODUCTION AND APPLICATION OF SPSS IN RESEARCH CLINICAL PSYCHOLOGY AND COMMUNITY MENTAL HEALTH |                      | 50       | 50    | 2      |
| MSW E 416*    | HEALTH   | 30                   | 70       | 100   | 3      |
| MSW E 417*    | NGO MANAGEMENT   |                      |          |       |        |
| MSW E 418*    | ADMINISTRATION OF WALFARE AND DEVELOPMENT SERVICES.  |                      |          |       |        |
|               | TOTAL  | 180                  | 470      | 650   | 20     |

Note: \* = Any one paper out of three



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બી.પી.એડ. સત્ર - ૧

વિભાગ - ૧ સૈદ્ધાંતિક

(૨)

| ક્રમ   | વિષય/પ્રવૃત્તિ   | આંતરીક<br>ગુણ | બાહ્ય<br>ગુણ | કુલ<br>ગુણ | ક્રેડિટ |
|--------|--|---------------|--------------|------------|---------|
| CC-101 | શારીરિક શિક્ષણનો ઇતિહાસ, આધુનિક પ્રવાહી અને પાયાગત સિદ્ધાંતો | 30            | 70           | 100        | 4       |
| CC-102 | શરીર રચના અને શરીર વિજ્ઞાન                                   | 30            | 70           | 100        | 4       |
| CC-103 | રમત ચિકિત્સા શાસ્ત્ર   | 30            | 70           | 100        | 4       |
| EC-101 | આહાર અને મેદસ્વિતા   |               |              |            |         |
|        | અથવા   | 30            | 70           | 100        | 4       |
| EC-102 | શિક્ષણની તાત્વીક આધારશિલાઓ                                   |               |              |            |         |
|        |  | 120           | 280          | 400        | 16      |

વિભાગ-૨ : પ્રાયોગિક - PRA-101

| ક્રમ | વિષય/પ્રવૃત્તિ  | આંતરીક<br>ગુણ | બાહ્ય<br>ગુણ | કુલ<br>ગુણ | ક્રેડિટ |
|------|---|---------------|--------------|------------|---------|
| 1    | ખેલકૂદ (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)<br>(૧) પ્રસ્થાન અને ફિનિશીંગ (૨) રીલેદોડ (૩) લાંબીકૂદ<br>(૪) ગોળાકેક | 10            | 30           | 40         | 1.6     |
| 2    | જિમ્નાસ્ટીક્સ (ભાઈઓ) (૧) ફ્લોર એક્સરસાઈઝ<br>(૨) હોરીઝન્ટલબાર (૩) વોલ્ટીંગબોક્સ                                | 10            | 30           | 40         | 1.6     |
|      | જિમ્નાસ્ટીક્સ (બહેનો) (૧) ફ્લોર એક્સરસાઈઝ<br>(૨) હોરીઝન્ટલબાર (૩) વોલ્ટીંગબોક્સ                               | 10            | 30           | 40         | 1.6     |
| 3    | યોગાસન (સૂર્યનમસ્કાર, પ્રાણાયામ, આસનો)  | 10            | 30           | 40         | 1.6     |
| 4    | ખો-ખો (કૌશલ્ય, પંચકાર્ય, સાધનો ઓ માપ)   | 10            | 30           | 40         | 1.6     |
| 5    | કબડડી (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)   | 10            | 30           | 40         | 1.6     |
| 6    | હેન્ડબોલ (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)  | 10            | 30           | 40         | 1.6     |
| 7    | કુસ્તી (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)  | 10            | 30           | 40         | 1.6     |
| 8    | બેડમિન્ટન (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)   | 10            | 30           | 40         | 1.6     |
| 9    | સાદી અને રીલે રમતો  | 10            | 30           | 40         | 1.6     |
| 10   | સંઘવ્યાયામ (૧) કેલેસ્થેનિક્સ (૨) ડમ્બેલ્સ (૩) વોન્ડ<br>(૪) ફ્લેગ્ક વાપત                                       | 10            | 30           | 40         | 1.6     |
|      |   | 100           | 300          | 400        | 16      |



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બી.પી.સંસ્. - 2

વિભાગ - 2

| ક્રમ   | વિષય/પ્રવૃત્તિ                        | આંતરીક<br>ગુણ | બાહ્ય<br>ગુણ | કુલ<br>ગુણ | ક્રેડિટ |
|--------|---------------------------------------|---------------|--------------|------------|---------|
| CC-201 | શૈક્ષણિક અને શારીરિક શિક્ષણની પદ્ધતિઓ | 30            | 70           | 100        | 4       |
| CC-202 | રમત સમાજશાસ્ત્ર                       | 30            | 70           | 100        | 4       |
| CC-203 | યોગ શિક્ષણ                            | 30            | 70           | 100        | 4       |
| EC-201 | શારીરિક યોગ્યતા અને સુખાકારી<br>અથવા  | 30            | 70           | 100        | 4       |
| EC-202 | કોમ્પ્યુટર, ઈ-લેર્નિંગ અને ટેકનોલોજી  |               |              |            |         |
|        |                                       | 120           | 280          | 400        | 16      |

વિભાગ-2 : પ્રાયોગિક - PRA-201

| ક્રમ | વિષય/પ્રવૃત્તિ  | આંતરીક<br>ગુણ | બાહ્ય<br>ગુણ | કુલ<br>ગુણ | ક્રેડિટ |
|------|---|---------------|--------------|------------|---------|
| 1    | ખેલકૃદ (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)<br>(૧) પ્રસ્થાન અને ફિનિશીંગ (૨) રીલેલોડ (૩) લાંબીકૃદ<br>(૪) ગોબાલ્ક | 10            | 30           | 40         | 1.6     |
| 2    | જિમ્નાસ્ટીકસ (ભાઈઓ) (૧) ફ્લોર એક્સરસાઈઝ<br>(૨) હોરીઝન્ટલબાર (૩) વોલ્ટીંગબોક્સ                                 | 10            | 30           | 40         | 1.6     |
|      | જિમ્નાસ્ટીકસ (બહેનો) (૧) ફ્લોર એક્સરસાઈઝ<br>(૨) હોરીઝન્ટલબાર (૩) વોલ્ટીંગબોક્સ                                | 10            | 30           | 40         | 1.6     |
| 3    | વોલીબોલ (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)   | 10            | 30           | 40         | 1.6     |
| 4    | ફૂટબોલ (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)  | 10            | 30           | 40         | 1.6     |
| 5    | બાસ્કેટબોલ (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)  | 10            | 30           | 40         | 1.6     |
| 6    | ટેબલ ટેનિસ (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)  | 10            | 30           | 40         | 1.6     |
| 7    | ક્રિકેટ (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)   | 10            | 30           | 40         | 1.6     |
| 8    | જુડો (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)  | 10            | 30           | 40         | 1.6     |
| 9    | શૈક્ષણિક પ્રવાસ (લેખિત રીપોર્ટ) / રમત સજ્જતા, સ્પર્ધા અને<br>વ્યવસ્થાપન                                       | 10            | 30           | 40         | 1.6     |
| 10   | સંઘવ્યાયામ (૧) કેલેસ્થેનિકસ (૨) ડમ્બેલ્સ (૩) વોન્ડ<br>(૪) ફ્લેગક વાયટ   | 10            | 30           | 40         | 1.6     |
|      |   | 100           | 300          | 400        | 16      |



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બી.પી.એડ. સત - ૩  
વિભાગ - ૧ શૈક્ષણિક

૩

| ક્રમ   | વિષય/પ્રવૃત્તિ                      | આંતરીક<br>ગુણ | બાહ્ય<br>ગુણ | કુલ<br>ગુણ | ક્રેડિટ |
|--------|-------------------------------------|---------------|--------------|------------|---------|
| CC-301 | શારીરિક શિક્ષણ અને રમત મનોવિજ્ઞાન   | 30            | 70           | 100        | 4       |
| CC-302 | પંચકાર્ય અને રાહબરી                 | 30            | 70           | 100        | 4       |
| CC-303 | હલનચલન શાસ્ત્ર અને જીવયંત્ર વિજ્ઞાન | 30            | 70           | 100        | 4       |
| EC-301 | શારીરિક શિક્ષણમાં કસોટી અને માપન    |               |              |            |         |
|        | અથવા                                | 30            | 70           | 100        | 4       |
| EC-302 | પર્યાવરણ અને સ્વાસ્થ્ય શિક્ષણ       |               |              |            |         |
|        |                                     | 120           | 280          | 400        | 16      |

વિભાગ-૨ : પ્રાયોગિક - PRA-301

| ક્રમ | વિષય/પ્રવૃત્તિ   | આંતરીક<br>ગુણ | બાહ્ય<br>ગુણ | કુલ<br>ગુણ | ક્રેડિટ |
|------|--|---------------|--------------|------------|---------|
| 1    | ખેલકૂદ (ક્રીડાલય, પંચકાર્ય, સાધનો અને માપ)<br>(૧) સ્ટીપલચેઈજ અને જલદયાલ (૨) ચક્રકેક (૩) હથોડાકેક<br>(૪) વાંસકૂદ  | 10            | 30           | 40         | 1.6     |
| 2    | નેટબોલ (ક્રીડાલય, પંચકાર્ય, સાધનો અને માપ)   | 10            | 30           | 40         | 1.6     |
| 3    | હોકી (ક્રીડાલય, પંચકાર્ય, સાધનો અને માપ)   | 10            | 30           | 40         | 1.6     |
| 4    | ટેનિસ (ક્રીડાલય, પંચકાર્ય, સાધનો અને માપ)  | 10            | 30           | 40         | 1.6     |
| 5    | સોફ્ટબોલ (ક્રીડાલય, પંચકાર્ય, સાધનો અને માપ)   | 10            | 30           | 40         | 1.6     |
|      |  | 50            | 150          | 200        | 8.0     |
|      | પાઠઆયોજન   |               |              |            |         |
| 1    | શારીરિક શિક્ષણના પ્રાયોગિક પાઠઆયોજન આંતરીક-૮<br>પાઠ- સંઘવ્યાયામ-૧, જિમ્નાસ્ટીક્સ-૧, ખેલકૂદ-૧,<br>સત્ર-૧,૨,૩ માં સમાવેશ કરેલ કોઈપણ એક ક્રીડા-૫<br>બાહ્ય-૨, પાઠ-સંઘવ્યાયામ/જિમ્નાસ્ટીક્સ/ખેલકૂદમાંથી-૧,<br>રમતોમાંથી-૧ | 40            | 40           | 100        | 4.0     |
| 2    | શારીરિક શિક્ષણના વર્ગબંધ પાઠઆયોજન આંતરીક-૮,<br>પાઠ-સંઘવ્યાયામ/જિમ્નાસ્ટીક્સ/ખેલકૂદમાંથી-૩, અભ્યાસક્રમ<br>પ્રમાણે, રમતોમાંથી-૩ અભ્યાસક્રમ પ્રમાણે, પાઠ-૧ પાઠ,<br>રમતોમાંથી-૧  | 20            | 30           | 50         | 2.0     |
|      |  | 60            | 90           | 150        | 6.0     |



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વિભાગ - ૧ સૈનિક

૪

| ક્રમ   | વિષય/પ્રવૃત્તિ                                  | આંતરીક ગુણ | બાહ્ય ગુણ | કુલ ગુણ | ક્રેડિટ |
|--------|---|------------|-----------|---------|---------|
| CC-401 | રમત તાલીમ                                       | 30         | 70        | 100     | 4       |
| CC-402 | રમત સંચાલન અભ્યાસક્રમ રચના                      | 30         | 70        | 100     | 4       |
| CC-403 | રમત ઈજાઓમાં ફિઝીયોથેરાપી અને પુનઃ સ્થિતિ સ્થાપન | 30         | 70        | 100     | 4       |
| EC-401 | શિક્ષણના પાયાગત તત્ત્વો                         |            |           |         |         |
|        | અથવા  | 30         | 70        | 100     | 4       |
| EC-402 | જ્ઞાનાત્મક રમત-ગમત અને ખેલકૂદ                   |            |           |         |         |
|        |   | 120        | 280       | 400     | 16      |

વિભાગ-૨ : પ્રાયોગિક - PRA-401

| ક્રમ | વિષય/પ્રવૃત્તિ   | આંતરીક ગુણ | બાહ્ય ગુણ | કુલ ગુણ | ક્રેડિટ |
|------|--|------------|-----------|---------|---------|
| 1    | બેઈજબોલ (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)  | 10         | 30        | 40      | 1.6     |
| 2    | બોલ બેડમિન્ટન (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)  | 10         | 30        | 40      | 1.6     |
| 3    | આર્ચરી (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)   | 10         | 30        | 40      | 1.6     |
| 4    | એરોબિક્સ/તાલગતી (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)  | 10         | 30        | 40      | 1.6     |
| 5    | થ્રો (કૌશલ્ય, પંચકાર્ય, સાધનો અને માપ)   | 10         | 30        | 40      | 1.6     |
|      |  | 50         | 150       | 200     | 8.0     |
|      | પાઠઆયોજન   |            |           |         |         |
| 1    | શારીરિક શિક્ષણના પ્રાયોગિક પાઠઆયોજન આંતરીક-૮<br>પાઠ- સંઘવ્યાયામ-૧, જિમ્નાસ્ટીક્સ-૧, ખેલકૂલ-૧,<br>સત્ર-૧, ૨, ૩ માં સમાવેશ કરેલ કોઈપણ રમતોમાંથી-૫<br>બાહ્ય-૨, પાઠ-સંઘવ્યાયામ/જિમ્નાસ્ટીક્સ/ખેલકૂદમાંથી-૧,<br>રમતોમાંથી-૧   | 40         | 40        | 100     | 4.0     |
| 2    | શારીરિક શિક્ષણના વર્ગખંડ પાઠઆયોજન આંતરીક-૪,<br>પાઠ-સંઘવ્યાયામ/જિમ્નાસ્ટીક્સ/ખેલકૂદમાંથી-૧, અભ્યાસક્રમ<br>પ્રમાણે, રમતોમાંથી-૩ અભ્યાસક્રમ પ્રમાણે, પાઠ-૧ પાઠ,<br>રમતોમાંથી-૧<br>આ પાઠનું માધ્યમિક નિવાસી શાળાઓમાં અંદાજીત ૫ જાન્યુ.<br>થી ૨૬ જાન્યુ. વચ્ચે આયોજન કરવું. | 20         | 30        | 50      | 2.0     |
|      |  | 60         | 90        | 150     | 6.0     |



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**Semester - I**

| <b>Part A :Theoretical Course</b> |   |                    |               |                       |                       |                    |
|-----------------------------------|---|--------------------|---------------|-----------------------|-----------------------|--------------------|
| <b>Course Code</b>                | <b>Title of the Papers</b>  | <b>Total Hours</b> | <b>Credit</b> | <b>Internal Marks</b> | <b>External Marks</b> | <b>Total Marks</b> |
| <b>Core Course</b>                |   |                    |               |                       |                       |                    |
| <b>MPCC-101</b>                   | Research Process in Physical Education & Sports Sciences  | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPCC-102</b>                   | Physiology of Exercise.   | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPCC-103</b>                   | Yogic Sciences  | 3                  | 3             | 30                    | 70                    | 100                |
| <b>Elective Course (Anyone)</b>   |   |                    |               |                       |                       |                    |
| <b>MPEC-101</b>                   | Tests, Measurement and Evaluation in Physical Education   | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPEC-102</b>                   | Sports Technology   |                    |               |                       |                       |                    |
| <b>Part-B Practical Course</b>    |   |                    |               |                       |                       |                    |
| <b>MPPC-101</b>                   | Track and Field<br>1. Running Events<br>*2. Gymnastics<br>*3. Swimming. (* Any one)   | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-102</b>                   | Laboratory Practical<br>Sports Psychology, Physiology of Exercise, Sports Biomechanics and Kinesiology<br>(Two practicals for each subject) | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-103</b>                   | Yoga<br>*Aerobics/ Self Defence<br>Techniques-Martial Arts, Taek-won-do/ Shooting/ Archery -<br>(* Any One activity + Yoga)                 | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-104</b>                   | Adventure Activities/ Mass demonstration Activities-  | 6                  | 3             | 30                    | 70                    | 100                |
| <b>Total</b>                      |   | 36                 | 24            | 240                   | 560                   | 800                |

**Note:** Total number of hours required to earn 3 credits for each theory course are 51-60 hours per semester whereas 102-120 hours for each practicum course.



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**Semester - II**

| <b>Part A: Theoretical Course</b> |   |                    |               |                       |                       |                    |
|-----------------------------------|---|--------------------|---------------|-----------------------|-----------------------|--------------------|
| <b>Course Code</b>                | <b>Title of the Papers</b>  | <b>Total Hours</b> | <b>Credit</b> | <b>Internal Marks</b> | <b>External Marks</b> | <b>Total Marks</b> |
| <b>Core Course</b>                |   |                    |               |                       |                       |                    |
| <b>MPCC-201</b>                   | Applied Statistics in Physical Education & Sports   | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPCC-202</b>                   | Sports Biomechanics & Kinesiology   | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPCC-203</b>                   | Athletic Care and Rehabilitation  | 3                  | 3             | 30                    | 70                    | 100                |
| <b>Elective Course (Anyone)</b>   |   |                    |               |                       |                       |                    |
| <b>MPEC-201</b>                   | Sports Journalism and Mass Media  | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPEC-202</b>                   | Sports Management and Curriculum Designs in Physical Education  |                    |               |                       |                       |                    |
| <b>Part-B Practical Course</b>    |   |                    |               |                       |                       |                    |
| <b>MPPC-201</b>                   | Track and Field II; Jumping events + Hurdles<br>*Gymnastics/ *Swimming<br>(*any one)  | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-202</b>                   | Games Specialization- Kabaddi, Kho-Kho, Badminton/ Table Tennis/ Tennis/ Squash/ Baseball/ Volleyball/ Basketball/ Cricket/ Football/ Handball/ Hockey/ Netball/ Softball<br>(Any two games.) | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-203</b>                   | Teaching Lessons of Indigenous Activities and Sports- 5 Lessons(4 Internal & 1 External)  | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-204</b>                   | Class room Teaching Lessons on theory of different Sports & Games- 5 Lessons (4 Internal & 1 External)  | 6                  | 3             | 30                    | 70                    | 100                |
| <b>Total</b>                      |   | 36                 | 24            | 240                   | 560                   | 800                |

**Note:** Total number of hours required to earn 3 credits for each theory course are 51-60 hours per semester whereas 102-120 hours for each practicum course.



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**Semester - III**

| <b>Part A: Theoretical Course</b> |  |                    |               |                       |                       |                    |
|-----------------------------------|--|--------------------|---------------|-----------------------|-----------------------|--------------------|
| <b>Course Code</b>                | <b>Title of the Papers</b>   | <b>Total Hours</b> | <b>Credit</b> | <b>Internal Marks</b> | <b>External Marks</b> | <b>Total Marks</b> |
| <b>Core Course</b>                |  |                    |               |                       |                       |                    |
| <b>MPCC-301</b>                   | Scientific Principles of Sports Training   | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPCC-302</b>                   | Sports Medicine  | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPCC-303</b>                   | Health Education and Sports Nutrition  | 3                  | 3             | 30                    | 70                    | 100                |
| <b>Elective Course (Anyone)</b>   |  |                    |               |                       |                       |                    |
| <b>MPEC-301</b>                   | Sports Engineering   | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPEC-302</b>                   | Physical Fitness and Wellness  |                    |               |                       |                       |                    |
| <b>Part-B Practical Course</b>    |  |                    |               |                       |                       |                    |
| <b>MPPC-301</b>                   | Track and Field III: Throwing Events +introduction of Heptathlon event.<br>*Gymnastics/*Swimming<br>(*Any One) | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-302</b>                   | Games Specialization- III<br>Boxing/ Fencing/ Judo/ Karate/ Wrestling/ Wushu<br>(Any Two)                      | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-303</b>                   | Coaching Lessons of Track and Field/ Gymnastics/ Swimming - 5 Lessons (4 Internal & 1 External)                | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-304</b>                   | Coaching Lessons of Game Specialization - 5 Lessons (4 Internal & 1 External)                                  | 6                  | 3             | 30                    | 70                    | 100                |
| <b>Total</b>                      |  | 36                 | 24            | 240                   | 560                   | 800                |

**Note:** Total number of hours required to earn 3 credits for each theory course are 51-60 hours per semester whereas 102-120 hours for each practicum course.



  
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**Semester - IV**

| <b>Part A: Theoretical Course</b> |   |                    |               |                       |                       |                    |
|-----------------------------------|---|--------------------|---------------|-----------------------|-----------------------|--------------------|
| <b>Course Code</b>                | <b>Title of the Papers</b>  | <b>Total Hours</b> | <b>Credit</b> | <b>Internal Marks</b> | <b>External Marks</b> | <b>Total Marks</b> |
| <b>Core Course</b>                |   |                    |               |                       |                       |                    |
| <b>MPCC-401</b>                   | Information & Communication Technology (ICT) in Physical Education  | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPCC-402</b>                   | Sports Psychology   | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPCC-403</b>                   | Dissertation  | 3                  | 3             | 30                    | 70                    | 100                |
| <b>Elective Course (Anyone)</b>   |   |                    |               |                       |                       |                    |
| <b>MPEC-401</b>                   | Value and Environmental Education   | 3                  | 3             | 30                    | 70                    | 100                |
| <b>MPEC-402</b>                   | Education Technology in Physical Education  |                    |               |                       |                       |                    |
| <b>Part-B Practical Course</b>    |   |                    |               |                       |                       |                    |
| <b>MPPC-401</b>                   | Track and Field<br>Introduction of Decathlon event<br>*Gymnastics<br>*Swimming Practical Skill<br>(*any one)  | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-402</b>                   | Games Specialization-<br>Practical skills (any two)   | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-403</b>                   | Officiating Lessons of<br>Track and Field/<br>Gymnastic/ Swimming - 5<br>Lessons (4 Internal & 1<br>External) | 6                  | 3             | 30                    | 70                    | 100                |
| <b>MPPC-404</b>                   | Officiating Lessons of<br>Game Specializations<br>- 5 Lessons (4 Internal & 1<br>External)                    | 6                  | 3             | 30                    | 70                    | 100                |
| <b>Total</b>                      |   | 36                 | 24            | 240                   | 560                   | 800                |
|                                   |   | 144                | 96            | 960                   | 2240                  | 3200               |

**Note:** Total number of hours required to earn 3 credits for each theory course are 51-60 hours per semester whereas 102-120 hours for each practicum course.



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**PROGRAM CODE : HNGU1104**



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**Hemchandracharya North Gujarat University**  
**Institute of Architecture**  
 Teaching and Examination Scheme

| <b>Programme</b>                    | Bachelor of Architecture              |                     |    |  |                  |                           |             |    |               |    |                            |           |                    |           |          |            |       |
|-------------------------------------|---------------------------------------|---------------------|----|--|------------------|---------------------------|-------------|----|---------------|----|----------------------------|-----------|--------------------|-----------|----------|------------|-------|
| <b>Semester</b>                     | I (ONE)                               |                     |    |  |                  |                           |             |    |               |    |                            |           |                    |           |          |            |       |
| <b>Effective from Academic Year</b> | 2020-21                               |                     |    | <b>Effective for the batch admitted in</b> |                  |                           |             |    |               |    | June 2020                  |           |                    |           |          |            |       |
| Subject Code                        | Subject Title                         | Teaching scheme     |    |  |                  |                           |             |    |               |    | Examination scheme (Marks) |           |                    |           |          |            |       |
|                                     |                                       | Credit              |    |  | Hours (per week) |                           |             |    |               |    | Theory                     |           |                    | Practical |          |            |       |
|                                     |                                       | Lecture (L)         |    | Practical (P)                              |                  | TOTAL (L + P)             | Lecture (L) |    | Practical (P) |    | TOTAL (L + P)              | Internal  | Uni. Exam          | Total     | Internal | Uni. Exam  | Total |
|                                     |                                       | L                   | TU | P  | TW               | (L + P)                   | L           | TU | P             | TW | (L + P)                    |           |                    |           |          |            |       |
| ARCH-101                            | Architectural Design Studio I         |                     |    | 2  | 3                | 5                         |             |    | 3             | 3  | 6                          |           |                    |           | 50       | 50         | 100   |
| ARCH-102                            | Basic Design and Visual Arts I        |                     |    | 2  | 3                | 5                         |             |    | 3             | 3  | 6                          |           |                    |           | 50       | 50         | 100   |
| ARCH-103                            | Architecture Graphics Techniques I    | 2                   |    | 1  | 2                | 5                         | 2           |    | 2             | 2  | 6                          |           |                    |           | 50       | 50         | 100   |
| ARCH-104                            | Building Materials and Construction I | 2                   |    | 2  | 1                | 5                         | 2           |    | 3             | 1  | 6                          |           |                    |           | 50       | 50         | 100   |
| ARCH-105                            | History of Architecture and Culture I | 2                   |    |  |                  | 2                         | 2           |    |               |    | 2                          | 50        | 50                 | 100       |          |            |       |
| ARCH-106                            | Structure I                           | 2                   |    |  |                  | 2                         | 2           |    |               |    | 2                          | 50        | 50                 | 100       |          |            |       |
| ARCH-107                            | Art Studio                            |                     |    | 1  | 1                | 2                         |             |    | 2             | 1  | 3                          |           |                    |           | 50       | 50         | 100   |
| ARCH-108                            | Communicative English                 | 2                   |    |  |                  | 2                         | 2           |    |               |    | 2                          | 50        | 50                 | 100       |          |            |       |
|                                     |                                       | 10                  | 0  | 8  | 10               | 28                        | 10          | 0  | 13            | 10 | 33                         |           |                    | 300       |          |            | 500   |
|                                     |                                       | <b>Total Credit</b> |    |  | <b>28</b>        | <b>Total Teaching Hrs</b> |             |    |               |    |                            | <b>33</b> | <b>Total Marks</b> |           |          | <b>800</b> |       |

**Credit v/s Hour ratio:**

1 L (Lecture) = 1 Hour, 1 TU (Tutorial) = 1 Hour,

1 P (Practical) = 2 Hour for Lab/Workshop/Studio Exercises, 1 TW (Term Work) = 1 Hour

1 P (Practical) = 1.5 Hour for Design Studios / Construction Studio



**Hemchandracharya North Gujarat University**  
**Institute of Architecture**  
 Teaching and Examination Scheme

**Programme** Bachelors of Architecture

**Semester** II (TWO)

**Effective from Academic Year** 2020-21

**Effective for the batch admitted in** June 2020

| Subject Code | Subject Title                              | Teaching scheme     |    |               |    |                  |                  |                           |               |    |                  | Examination scheme (Marks) |           |                    |           |           |            |
|--------------|--|---------------------|----|---------------|----|------------------|------------------|---------------------------|---------------|----|------------------|----------------------------|-----------|--------------------|-----------|-----------|------------|
|              |  | Credit              |    |               |    |                  | Hours (per week) |                           |               |    |                  | Theory                     |           |                    | Practical |           |            |
|              |  | Lecture (L)         |    | Practical (P) |    | TOTAL<br>(L + P) | Lecture (L)      |                           | Practical (P) |    | TOTAL<br>(L + P) | Internal                   | Uni. Exam | Total              | Internal  | Uni. Exam | Total      |
|              |  | L                   | TU | P             | TW |                  | L                | TU                        | P             | TW |                  |                            |           |                    |           |           |            |
| ARCH-201     | Architectural Design Studio II             | 1                   |    | 2             | 2  | 5                | 1                |                           | 3             | 2  | 6                |                            |           |                    | 50        | 50        | 100        |
| ARCH-202     | Basic Design and Visual Arts II            |                     |    | 2             | 2  | 4                |                  |                           | 4             | 2  | 6                |                            |           |                    | 50        | 50        | 100        |
| ARCH-203     | Architecture Graphics Techniques II        | 2                   |    | 1             | 2  | 5                | 2                |                           | 2             | 2  | 6                |                            |           |                    | 50        | 50        | 100        |
| ARCH-204     | Building Materials and Construction II     | 2                   |    | 2             |    | 4                | 2                |                           | 4             |    | 6                |                            |           |                    | 50        | 50        | 100        |
| ARCH-205     | History of Architecture and Culture II     | 2                   |    |               |    | 2                | 2                |                           |               |    | 2                | 50                         | 50        | 100                |           |           |            |
| ARCH-206     | Structure II                               | 2                   |    |               |    | 2                | 2                |                           |               |    | 2                | 50                         | 50        | 100                |           |           |            |
| ARCH-207     | Theory of Architecture                     | 2                   |    |               |    | 2                | 2                |                           |               |    | 2                | 50                         | 50        | 100                |           |           |            |
| ARCH-208     | Model Making and Architectural Delineation |                     |    | 2             |    | 2                |                  |                           | 3             |    | 3                |                            |           |                    | 50        | 50        | 100        |
| ARCH-200     | Related Study Programme I                  |                     |    | 2             |    | 2                |                  |                           |               |    |                  |                            |           |                    | 100       |           | 100        |
|              |  | 11                  | 0  | 11            | 6  | 28               | 11               | 0                         | 16            | 6  | 33               |                            |           | 300                |           |           | 600        |
|              |  | <b>Total Credit</b> |    |               |    |                  | <b>28</b>        | <b>Total Teaching Hrs</b> |               |    |                  |                            | <b>33</b> | <b>Total Marks</b> |           |           | <b>900</b> |

**Credit v/s Hour ratio:**

1 L (Lecture) = 1 Hour, 1 TU (Tutorial) = 1 Hour,

1 P (Practical) = 2 Hour for Lab/Workshop/Studio Exercises, 1 TW (Term Work) = 1 Hour

1 P (Practical) = 1.5 Hour for Design Studios / Construction Studio



**Hemchandracharya North Gujarat University**

**Institute of Architecture**

**Teaching and Examination Scheme**

**Programme** Bachelor of Architecture

**Semester** III (THREE)

**Effective from Academic Year** 2020-21

**Effective for the batch admitted in** June 2020

| Subject Code | Subject Title                           | Teaching scheme     |    |               |    |                  |                           |    |               |    | Examination scheme (Marks) |           |                    |           |          |              |       |
|--------------|---|---------------------|----|---------------|----|------------------|---------------------------|----|---------------|----|----------------------------|-----------|--------------------|-----------|----------|--------------|-------|
|              |   | Credit              |    |               |    | Hours (per week) |                           |    |               |    | Theory                     |           |                    | Practical |          |              |       |
|              |   | Lecture (L)         |    | Practical (P) |    | TOTAL<br>(L + P) | Lecture (L)               |    | Practical (P) |    | TOTAL<br>(L + P)           | Internal  | Uni.<br>Exam       | Total     | Internal | Uni.<br>Exam | Total |
|              |   | L                   | TU | P             | TW |                  | L                         | TU | P             | TW |                            |           |                    |           |          |              |       |
| ARCH-301     | Architectural Design Studio III         | 2                   |    | 4             | 2  | 8                | 2                         |    | 6             | 2  | 10                         |           |                    |           | 50       | 50           | 100   |
| ARCH-302     | Building Materials and Construction III | 2                   |    | 2             | 2  | 6                | 2                         |    | 2             | 2  | 6                          |           |                    |           | 50       | 50           | 100   |
| ARCH-303     | History of Architecture I               | 2                   |    |               |    | 2                | 2                         |    |               |    | 2                          | 50        | 50                 | 100       |          |              |       |
| ARCH-304     | Structure III                           | 2                   |    |               |    | 2                | 2                         |    |               |    | 2                          | 50        | 50                 | 100       |          |              |       |
| ARCH-305     | Building Services I                     | 2                   |    |               |    | 2                | 2                         |    |               |    | 2                          | 50        | 50                 | 100       |          |              |       |
| ARCH-306     | Site Survey & Levelling                 | 1                   |    | 2             |    | 3                | 1                         |    | 2             |    | 3                          | 50        | 50                 | 100       |          |              |       |
| ARCH-307     | Climate and Built Environment           | 2                   | 1  |               |    | 3                | 2                         | 1  |               |    | 3                          | 50        | 50                 | 100       |          |              |       |
| ARCH-308     | Vernacular Architecture                 | 2                   |    |               |    | 2                | 2                         |    |               |    | 2                          | 50        | 50                 | 100       |          |              |       |
| ARCH-309     | Professional Elective-I                 |                     |    | 1             | 1  | 2                |                           |    | 2             | 1  | 3                          |           |                    |           | 50       | 50           | 100   |
|              |   | 15                  | 1  | 9             | 5  | 30               | 15                        | 1  | 12            | 5  | 33                         |           |                    | 600       |          |              | 300   |
|              |   | <b>Total Credit</b> |    |               |    | <b>30</b>        | <b>Total Teaching Hrs</b> |    |               |    |                            | <b>33</b> | <b>Total Marks</b> |           |          | <b>900</b>   |       |

**Credit v/s Hour ratio:**

1 L (Lecture) = 1 Hour, 1 TU (Tutorial) = 1 Hour,

1 P (Practical) = 2 Hour for Lab/Workshop/Studio Exercises, 1 TW (Term Work) = 1 Hour

1 P (Practical) = 1.5 Hour for Design Studios / Construction Studio



  
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**Institute of Architecture**

Teaching and Examination Scheme

|                                     |  |                        |   |  |                         |                           |                    |   |                      |         |                                   |           |                    |                  |              |                 |                 |              |            |
|-------------------------------------|--|------------------------|---|--|-------------------------|---------------------------|--------------------|---|----------------------|---------|-----------------------------------|-----------|--------------------|------------------|--------------|-----------------|-----------------|--------------|------------|
| <b>Programme</b>                    | Bachelor of Architecture               |                        |   |  |                         |                           |                    |   |                      |         |                                   |           |                    |                  |              |                 |                 |              |            |
| <b>Semester</b>                     | IV (FOUR)                              |                        |   |  |                         |                           |                    |   |                      |         |                                   |           |                    |                  |              |                 |                 |              |            |
| <b>Effective from Academic Year</b> | 2020-21                                |                        |   | <b>Effective for the batch admitted in</b> June 2020 |                         |                           |                    |   |                      |         |                                   |           |                    |                  |              |                 |                 |              |            |
| <b>Subject Code</b>                 | <b>Subject Title</b>                   | <b>Teaching scheme</b> |   |  |                         |                           |                    |   |                      |         | <b>Examination scheme (Marks)</b> |           |                    |                  |              |                 |                 |              |            |
|                                     |  | <b>Credit</b>          |   |  | <b>Hours (per week)</b> |                           |                    |   |                      |         | <b>Theory</b>                     |           |                    | <b>Practical</b> |              |                 |                 |              |            |
|                                     |  | <b>Lecture (L)</b>     |   | <b>Practical (P)</b>                                 | <b>TOTAL (L + P)</b>    |                           | <b>Lecture (L)</b> |   | <b>Practical (P)</b> |         | <b>TOTAL (L + P)</b>              |           | <b>Internal</b>    | <b>Uni Exam</b>  | <b>Total</b> | <b>Internal</b> | <b>Uni Exam</b> | <b>Total</b> |            |
|                                     | L                                      | TU                     | P | TW   | (L + P)                 | L                         | TU                 | P | TW                   | (L + P) |                                   |           |                    |                  |              |                 |                 |              |            |
| ARCH-401                            | Architectural Design Studio IV         | 1                      |   | 6  | 1                       | 8                         | 1                  |   | 10                   | 1       | 12                                |           |                    |                  | 50           | 50              | 100             |              |            |
| ARCH-402                            | Building Materials and Construction IV | 2                      |   | 2  | 2                       | 6                         | 2                  |   | 2                    | 2       | 6                                 |           |                    |                  | 50           | 50              | 100             |              |            |
| ARCH-403                            | History of Architecture II             | 2                      |   |  |                         | 2                         | 2                  |   |                      |         | 2                                 | 50        | 50                 | 100              |              |                 |                 |              |            |
| ARCH-404                            | Structure IV                           | 2                      |   |  |                         | 2                         | 2                  |   |                      |         | 2                                 | 50        | 50                 | 100              |              |                 |                 |              |            |
| ARCH-405                            | Building Services II                   | 2                      |   |  |                         | 2                         | 2                  |   |                      |         | 2                                 | 50        | 50                 | 100              |              |                 |                 |              |            |
| ARCH-406                            | Site planning and management           | 3                      |   |  |                         | 3                         | 3                  |   |                      |         | 3                                 | 50        | 50                 | 100              |              |                 |                 |              |            |
| ARCH-407                            | Environmental Science for Architecture | 3                      |   |  |                         | 3                         | 3                  |   |                      |         | 3                                 | 50        | 50                 | 100              |              |                 |                 |              |            |
| ARCH-408                            | Professional Elective-II               |                        |   | 1  | 1                       | 2                         |                    |   | 2                    | 1       | 3                                 |           |                    |                  | 50           | 50              | 100             |              |            |
| ARCH-400                            | Related Study Programme II             |                        |   | 2  |                         | 2                         |                    |   |                      |         |                                   |           |                    |                  | 100          |                 | 100             |              |            |
|                                     |  | 15                     | 0 | 11   | 4                       | 30                        | 15                 | 0 | 14                   | 4       | 33                                |           |                    | 500              |              |                 | 400             |              |            |
|                                     |  | <b>Total Credit</b>    |   |  | <b>30</b>               | <b>Total Teaching Hrs</b> |                    |   |                      |         |                                   | <b>33</b> | <b>Total Marks</b> |                  |              |                 |                 |              | <b>900</b> |

**Credit v/s Hour ratio:**

1 L (Lecture) = 1 Hour, 1 TU (Tutorial) = 1 Hour,

1 P (Practical) = 2 Hour for Lab/Workshop/Studio Exercises, 1 TW (Term Work) = 1 Hour

1 P (Practical) = 1.5 Hour for Design Studios / Construction Studio



  
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**Hemchandracharya North Gujarat University**

**Institute of Architecture**

**Teaching and Examination Scheme**

**Programme** Bachelor of Architecture

**Semester** V (FIVE)

**Effective from Academic Year** 2022-23

**Effective for the batch admitted in** June 2020-21

| Subject Code | Subject Title                         | Teaching scheme     |    |               |    |                  |                  |                           |               |    |                  | Examination scheme (Marks) |           |                    |           |           |            |
|--------------|---------------------------------------|---------------------|----|---------------|----|------------------|------------------|---------------------------|---------------|----|------------------|----------------------------|-----------|--------------------|-----------|-----------|------------|
|              |                                       | Credit              |    |               |    |                  | Hours (per week) |                           |               |    |                  | Theory                     |           |                    | Practical |           |            |
|              |                                       | Lecture (L)         |    | Practical (P) |    | TOTAL<br>(L + P) | Lecture (L)      |                           | Practical (P) |    | TOTAL<br>(L + P) | Internal                   | Uni. Exam | Total              | Internal  | Uni. Exam | Total      |
|              |                                       | L                   | TU | P             | TW |                  | L                | TU                        | P             | TW |                  |                            |           |                    |           |           |            |
| ARCH-501     | Architectural Design Studio V         | 2                   | 2  | 4             | 2  | 10               | 2                | 2                         | 6             | 2  | 12               |                            |           |                    | 50        | 50        | 100        |
| ARCH-502     | Building Materials and Construction V | 2                   |    | 2             | 2  | 6                | 2                |                           | 2             | 2  | 6                | 50                         | 50        | 100                |           |           |            |
| ARCH-503     | History of Architecture III           | 2                   |    |               |    | 2                | 2                |                           |               |    | 2                | 50                         | 50        | 100                |           |           |            |
| ARCH-504     | Structural Design and Systems I       | 2                   |    |               |    | 2                | 2                |                           |               |    | 2                | 50                         | 50        | 100                |           |           |            |
| ARCH-505     | Advance Building Services             | 2                   |    |               |    | 2                | 2                |                           |               |    | 2                | 50                         | 50        | 100                |           |           |            |
| ARCH-506     | Landscape Design                      | 1                   |    |               | 1  | 2                | 1                |                           |               | 1  | 2                | 50                         | 50        | 100                |           |           |            |
| ARCH-507     | Housing and Community Planning        | 2                   |    |               |    | 2                |                  |                           |               |    | 2                | 50                         | 50        | 100                |           |           |            |
| ARCH-508     | *Professional Elective III            |                     |    | 1             | 1  | 2                |                  |                           | 2             | 1  | 3                |                            |           |                    | 50        | 50        | 100        |
|              |                                       | 13                  | 2  | 7             | 6  | 28               | 11               | 2                         | 10            | 6  | 31               |                            |           | 600                |           |           | 200        |
|              |                                       | <b>Total Credit</b> |    |               |    |                  | <b>28</b>        | <b>Total Teaching Hrs</b> |               |    |                  |                            | <b>31</b> | <b>Total Marks</b> |           |           | <b>800</b> |

**Credit v/s Hour ratio:**

1 L (Lecture) = 1 Hour, 1 TU (Tutorial) = 1 Hour,

1 P (Practical) = 2 Hour for Lab/Workshop/Studio Exercises, 1 TW (Term Work) = 1 Hour

1 P (Practical) = 1.5 Hour for Design Studios / Construction Studio

\*Professional Elective III= (Traffic Awareness + Any one from List)



  
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**Hemchandracharya North Gujarat University**  
**Institute of Architecture**  
 Teaching and Examination Scheme

**Programme** Bachelor of Architecture

**Semester** VI (SIX)

**Effective from Academic Year** 2022-23

**Effective for the batch admitted in** June 2020-21

| Subject Code | Subject Title                          | Teaching scheme     |    |               |    |                  |                  |                           |               |    | Examination scheme (Marks) |           |                    |           |          |            |       |
|--------------|--|---------------------|----|---------------|----|------------------|------------------|---------------------------|---------------|----|----------------------------|-----------|--------------------|-----------|----------|------------|-------|
|              |  | Credit              |    |               |    |                  | Hours (per week) |                           |               |    | Theory                     |           |                    | Practical |          |            |       |
|              |  | Lecture (L)         |    | Practical (P) |    | TOTAL<br>(L + P) | Lecture (L)      |                           | Practical (P) |    | TOTAL<br>(L + P)           | Internal  | Uni. Exam          | Total     | Internal | Uni. Exam  | Total |
|              |  | L                   | TU | P             | TW |                  | L                | TU                        | P             | TW |                            |           |                    |           |          |            |       |
| ARCH-601     | Architectural Design Studio VI         | 2                   | 2  | 6             | 2  | 12               | 2                | 2                         | 9             | 2  | 15                         |           |                    |           | 50       | 50         | 100   |
| ARCH-602     | Building Materials and Construction VI | 2                   |    | 2             | 2  | 6                | 2                |                           | 2             | 2  | 6                          | 50        | 50                 | 100       |          |            |       |
| ARCH-603     | History of Architecture IV             | 2                   |    |               |    | 2                | 2                |                           |               |    | 2                          | 50        | 50                 | 100       |          |            |       |
| ARCH-604     | Structural Design and Systems II       | 2                   |    |               |    | 2                | 2                |                           |               |    | 2                          | 50        | 50                 | 100       |          |            |       |
| ARCH-605     | Estimation, Costing & Specification    | 2                   |    |               |    | 2                | 2                |                           |               |    | 2                          | 50        | 50                 | 100       |          |            |       |
| ARCH-606     | Professional Practice I                | 1                   |    |               | 1  | 2                | 1                |                           |               | 1  | 2                          | 50        | 50                 | 100       |          |            |       |
| ARCH-607     | Professional Elective IV               |                     |    | 1             | 1  | 2                |                  |                           | 2             | 1  | 3                          |           |                    |           | 50       | 50         | 100   |
|              |  | 11                  | 2  | 9             | 6  | 28               | 11               | 2                         | 13            | 6  | 32                         |           |                    | 500       |          |            | 200   |
|              |  | <b>Total Credit</b> |    |               |    |                  | <b>28</b>        | <b>Total Teaching Hrs</b> |               |    |                            | <b>32</b> | <b>Total Marks</b> |           |          | <b>700</b> |       |

**Credit v/s Hour ratio:**

1 L (Lecture) = 1 Hour, 1 TU (Tutorial) = 1 Hour,

1 P (Practical) = 2 Hour for Lab/Workshop/Studio Exercises, 1 TW (Term Work) = 1 Hour

1 P (Practical) = 1.5 Hour for Design Studios / Construction Studio



  
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### Semester 1

**Courses 101- 105** (105 is interdisciplinary paper) **(Total Credits: 5x4=20)**

|                       |  |
|-----------------------|--|
| <b>Paper: 101</b>     | Literature in English Language (1450-1660) Poetry          |
| <b>Paper: 102</b>     | Literature in English Language (1450-1660) Prose and Plays |
| <b>Paper: 103</b>     | Classical and Renaissance Literary Criticism               |
| <b>Paper: 104</b>     | Indian Writing in English                                  |
| <b>Paper: 105 (A)</b> | Adaptation Studies: Indian Subcontinent<br><b>OR</b>       |
| <b>Paper: 105 (B)</b> | Classics (Greek and Roman) in Translation<br><b>OR</b>     |
| <b>Paper: 105 (C)</b> | Literature by Indian Diaspora                              |

### Semester 2

**Courses 201-205** (205 is interdisciplinary paper) **(Total Credits: 5x4=20)**

|                       |  |
|-----------------------|--|
| <b>Paper: 201</b>     | Literature in English Language (1660- 1798)              |
| <b>Paper: 202</b>     | Literature in English Language (1760-1830)               |
| <b>Paper: 203</b>     | Neo Classical, Romantic and Victorian Literary Criticism |
| <b>Paper: 204</b>     | English Language Teaching                                |
| <b>Paper: 205 (A)</b> | Adaptation Studies: American<br><b>OR</b>                |
| <b>Paper: 205 (B)</b> | Classics (Russian) in Translation<br><b>OR</b>           |
| <b>Paper: 205 (C)</b> | Noble and Booker Prize Winning Texts                     |

### Semester 3

**Courses 301-305** (305 is interdisciplinary paper) **(Total Credits: 5x4=20)**

|                       |   |
|-----------------------|---|
| <b>Paper: 301</b>     | Literature in English Language (1830-1914)              |
| <b>Paper: 302</b>     | Literature in English Language (1900-1950)              |
| <b>Paper: 303</b>     | Contemporary Literary Criticism                         |
| <b>Paper: 304</b>     | Special Author (1): Translation: A Case Study of Tagore |
| <b>Paper: 305 (A)</b> | Humanism and Literature<br><b>OR</b>                    |
| <b>Paper: 305 (B)</b> | American Literature<br><b>OR</b>                        |
| <b>Paper: 305 (C)</b> | Research Methodology                                    |

### Semester 4

**Courses 401-405** (405 is interdisciplinary paper) (**Total Credits: 5x4=20**)

|                       |   |
|-----------------------|---|
| <b>Paper: 401</b>     | Literature in English Language ( 1950 to the Present) |
| <b>Paper: 402</b>     | Special Author (1): William Shakespeare               |
| <b>Paper: 403</b>     | African, Caribbean and American Literature            |
| <b>Paper: 404</b>     | Indian Texts in Translation                           |
| <b>Paper: 405 (A)</b> | Philosophy and Literature                             |
|                       | <b>OR</b>   |
| <b>Paper: 405 (B)</b> | Classics (French and German) in Translation           |
|                       | <b>OR</b>   |
| <b>Paper: 405 (C)</b> | Biographies and Autobiographies                       |

#### **Note:**

All the five courses in each semester are core compulsory papers. Courses 0105, 0205, 0305 and 0405 are interdisciplinary papers.

#### **SCHEME OF EXAMINATION**

There will be a written examination of students at the end of each semester. Each paper will be of three hours' duration, and the maximum marks for each paper will be 70. Continuous internal assessment for each course will be for 30 marks as per the following scheme:

- Written test: **15** marks
- Seminar Presentation: **10** marks (for the paper presentation by the student in the departmental seminar in each semester.)
- Overall Discipline, Attendance and Assignment: **05** Marks

**Note:** University examination would comprise of 70 marks. The format of the question paper will be as follows:

Format of the semester end examination question paper would be:

- Total Marks **70**
- Total Questions to be asked (Each With internal option) **05**
- One full length question from each unit **14**
- Fifth Question would be of Short notes **14**  
[One from each unit, out of which students are expected to write two short notes,(each of 7 marks)]

# M.A.: SANSKRIT SYLLABUS

| SEMESTER | COURSE CODE | COURSE NAME [NAME OF PAPER]   | Question Style | Internal Marks | External Marks | Total Course Credit |
|----------|-------------|---|----------------|----------------|----------------|---------------------|
| 1        | C.C.-101    | प्रसिद्ध संस्कृतनाट्यप्रतिઓનો અભ્યાસ<br>અભિજ્ઞાનશાકુન્તલ(કવિદાસ)  | 5              | 30             | 70             | 4                   |
| 1        | C.C.-102    | વેદિક સાહિત્ય-વસ્તુકા નિરૂપણ અધ્યાય - ૧, ૨, ૩નો અભ્યાસ  | 5              | 30             | 70             | 4                   |
| 1        | C.C.-103    | સમીપણ, મહાભારત અને પુરાણ સાહિત્યનો સ્વ-જી પરિચય   | 5              | 30             | 70             | 4                   |
| 1        | C.C.-104    | વેદિક સાહિત્ય (ઉપનિષદો) - ઈશ, કેનઉપનિષદો  | 5              | 30             | 70             | 4                   |
| 1        | I.D.-105(A) | અલંકારશાસ્ત્ર-મરત નાટ્યશાસ્ત્ર (પ્રથમ, દ્વિતીય તથા ત્રીજા અધ્યાય)   | 5              | 30             | 70             | 4                   |
| 1        | I.D.-105(B) | દર્શનશાસ્ત્ર-પર્વશિલ્પનો યોગસૂત્રો -સમાધિપાદ અને સાધનપાદ  | 5              | 30             | 70             | 4                   |
| 1        | I.D.-105(C) | પુરાણશાસ્ત્ર-અલંકારપુરાણ-સ્કંદ(પૂર્વાર્ધ-અધ્યાય ૧ અને ૪૯)   | 5              | 30             | 70             | 4                   |
| 2        | C.C.-201    | પ્રસિદ્ધ સંસ્કૃતનાટ્યકૃતિ- વલ્લભાસનચરિત્ર   | 5              | 30             | 70             | 4                   |
| 2        | C.C.-202    | વેદિક સાહિત્ય (ઉપનિષદ)-તૈત્તિરીયઉપનિષદ  | 5              | 30             | 70             | 4                   |
| 2        | C.C.-203    | (1)મહાભારત (પરમ્પરાલિખિત) (2) વિદ્વાનોત્તમીમુદી   | 5              | 30             | 70             | 4                   |
| 2        | C.C.-204    | અર્થસંગ્રહ - ઝીગાર્સો મારકર   | 5              | 30             | 70             | 4                   |
| 2        | I.D.-205(A) | અલંકારશાસ્ત્ર- ક્ષયરૂપક (પ્રથમ તથા દ્વિતીય પ્રકાશ)  | 5              | 30             | 70             | 4                   |
| 2        | I.D.-205(B) | દર્શનશાસ્ત્ર-નેવાન્ત બ્રહ્મસૂત્ર-શાંતકરમાખ્ય (1-1)  | 5              | 30             | 70             | 4                   |
| 2        | I.D.-205(C) | પુરાણશાસ્ત્ર-મ-સ્વપુરાણ-નિખલ અંશ અધ્યાય-૧ થી ૩૫, ૪૯ થી ૨૨, ૨૫, ૨૮, ૩૬, ૩૭, ૩૮ થી ૩૯, ૪૦ થી ૪૧, ૪૨, ૪૩, ૪૪, ૪૫, ૪૬, ૪૭, ૪૮, ૪૯                 | 5              | 30             | 70             | 4                   |
| 3        | C.C.-301    | પદ્ય સાહિત્ય- કિરાલામુનીય (પ્રથમ સર્ગ) - ૧ થી ૨૫ શ્લોક<br>શિશુપાલવધ (પ્રથમ સર્ગ) - ૧ થી ૨૫ શ્લોક<br>નૈષઠીયચરિત્ર (પ્રથમ સર્ગ) - ૧ થી ૨૫ શ્લોક | 5              | 30             | 70             | 4                   |
| 3        | C.C.-302    | વેદિક સાહિત્ય- વૃહદારણ્યક ઉપનિષદ (અધ્યાય 1 થી 3)  | 5              | 30             | 70             | 4                   |
| 3        | C.C.-303    | (1) વાક્યપદીય (બ્રહ્મકાંઠ) (2) યાગિનીચરિત્ર   | 5              | 30             | 70             | 4                   |
| 3        | C.C.-304    | તર્કભાષા- કેશવમિત્ર   | 5              | 30             | 70             | 4                   |
| 3        | I.D.-305(A) | અલંકારશાસ્ત્ર-ધ્વન્યાલોક (પ્રથમ ઉદ્યોત)<br>વક્રોત્તિઝીવિત્તમ્ (પ્રથમ ઉન્મેષ)  | 5              | 30             | 70             | 4                   |
| 3        | I.D.-305(B) | દર્શનશાસ્ત્ર-ન્યાય-વૈશેષિક- ન્યાયસિદ્ધાંતમુક્તાવલી<br>(અનુમાનલક્ષણ)   | 5              | 30             | 70             | 4                   |
| 3        | I.D.-305(C) | પુરાણશાસ્ત્ર- મ-સ્વપુરાણ નિખલ અંશ અધ્યાય-૧ થી ૧૦, ૧૮૬ થી ૧૮૪  | 5              | 30             | 70             | 4                   |
| 4        | C.C.-401    | મધ્ય સાહિત્ય- કાવ્યચરિત્રમ્ (મિત્રામોચ્ચકારણ)<br>કાવ્યચરિત્ર (શુક્લાશામદેશ)   | 5              | 30             | 70             | 4                   |
| 4        | C.C.-402    | વેદિક સાહિત્ય- તિરોહ સુક્તો આખ્યાય (પદ્યકાંઠ)   | 5              | 30             | 70             | 4                   |
| 4        | C.C.-403    | ક્રિતિવપ્તુ અર્થશાસ્ત્ર - અપિશરણ - V  | 5              | 30             | 70             | 4                   |
| 4        | C.C.-404    | પુરાણિક, અભિલેખ, શિલાલેખ  | 5              | 30             | 70             | 4                   |
| 4        | I.D.-405(A) | અલંકારશાસ્ત્ર-કાવ્યમીમાંસા (1 થી 5 અધ્યાય)  | 5              | 30             | 70             | 4                   |
| 4        | I.D.-405(B) | દર્શનશાસ્ત્ર-તત્ત્વદર્શનસંક્રમ્ - શ્રી મન્યા ધ્યાનાનુષંગ - ઝેનમત્,<br>બૌદ્ધમત્  | 5              | 30             | 70             | 4                   |
| 4        | I.D.-405(C) | પુરાણશાસ્ત્ર-અનિરમયણ અધ્યાય ૧ થી ૨૫   | 5              | 30             | 70             | 4                   |

**નોંધ:**

(૧) રેક્રુલર અને એક્સટર્નલ વિદ્યાર્થીઓ માટે આ જ અભ્યાસક્રમ સમાન રહેશે.

(૨) રેક્રુલર વિદ્યાર્થી માટે કોલેજમાંથી લેવાઈ પરીક્ષાના દરેક પેપરની આંતરિક પરીક્ષાના ૩૦ ગુણમાંથી આંતરિક પરીક્ષાના ૧૫ ગુણ રહેશે.

(૩) સેમિનારના ૧૦ ગુણ ગણાશે, વિષય અંતર્ગત દરેક મિનિટ વક્રવ્ય આપવાનું રહેશે.

(૪) અસાર્ક-મેન્ટના ૫ ગુણ રહેશે. વિદ્યાર્થીએ ફાળવેલા વિષય પર પંદર પૃષ્ઠનું લખાણ આપવાનું રહેશે.

# M.A.: SANSKRIT SYLLABUS

| SEMESTER | COURSE CODE | COURSE NAME [NAME OF PAPER]   | Question Style | Internal Marks | External Marks | Total Course Credit |
|----------|-------------|---|----------------|----------------|----------------|---------------------|
| 1        | C.C.-101    | प्रसिद्ध संस्कृतनाट्यप्रतिઓનો અભ્યાસ<br>અભિજ્ઞાનશાકુન્તલા(કવિદાસ)   | 5              | 30             | 70             | 4                   |
| 1        | C.C.-102    | વેદિક સાહિત્ય-૧૨૫૩૫ નિરૂપણ અધ્યાય - ૧, ૨, ૩નો અભ્યાસ  | 5              | 30             | 70             | 4                   |
| 1        | C.C.-103    | સમીપણ, મહાભારત અને પુરાણ સાહિત્યનો સ્વ-બંધ પરિચય  | 5              | 30             | 70             | 4                   |
| 1        | C.C.-104    | વેદિક સાહિત્ય (ઉપનિષદો) - રૂંધ, કેનઉપનિષદો  | 5              | 30             | 70             | 4                   |
| 1        | I.D.-105(A) | અલંકારશાસ્ત્ર-ભરત નાટ્યશાસ્ત્ર (પ્રથમ, દ્વિતીય તથા ત્રીજા અધ્યાય)   | 5              | 30             | 70             | 4                   |
| 1        | I.D.-105(B) | દર્શનશાસ્ત્ર-પર્વશિલ્પનો યોગસૂત્રો -સમાધિપાદ અને સાધનપાદ  | 5              | 30             | 70             | 4                   |
| 1        | I.D.-105(C) | પુરાણશાસ્ત્ર-અલંકારપુરાણ-સ્કંદ(પૂર્વાર્ધ-અધ્યાય ૧ અને ૪૯)   | 5              | 30             | 70             | 4                   |
| 2        | C.C.-201    | પ્રસિદ્ધ સંસ્કૃતનાટ્યકૃતિ- ઉત્તરરામાયણ  | 5              | 30             | 70             | 4                   |
| 2        | C.C.-202    | વેદિક સાહિત્ય (ઉપનિષદ)-તૈત્તિરીયઉપનિષદ  | 5              | 30             | 70             | 4                   |
| 2        | C.C.-203    | (1)મહાભારત (પરમ્પરાલિખિત) (2) વિદ્યાવતીગુપ્તી   | 5              | 30             | 70             | 4                   |
| 2        | C.C.-204    | અર્ણવગ્રંથ - ઓગણતો મારકવ  | 5              | 30             | 70             | 4                   |
| 2        | I.D.-205(A) | અલંકારશાસ્ત્ર- રૂપરૂપક (પ્રથમ તથા દ્વિતીય પ્રકાશ)   | 5              | 30             | 70             | 4                   |
| 2        | I.D.-205(B) | દર્શનશાસ્ત્ર-નેદાન્ત બ્રહ્મસૂત્ર-શાંતકરમાખ્ય (1-1)  | 5              | 30             | 70             | 4                   |
| 2        | I.D.-205(C) | પુરાણશાસ્ત્ર-મહાપુરાણ-નિખલ અંશ અધ્યાય-૧ થી ૩૫, ૪૯ થી ૨૨, ૨૫, ૨૮, ૩૬, ૩૭, ૩૮ થી ૩૯, ૪૦ થી ૪૧, ૪૨, ૪૩, ૪૪, ૪૫, ૪૬, ૪૭, ૪૮, ૪૯                   | 5              | 30             | 70             | 4                   |
| 3        | C.C.-301    | પદ્ય સાહિત્ય- કિરાલાલુનીય (પ્રથમ સર્ગ) - ૧ થી ૨૫ સ્લોક<br>શિશુપાલવધ (પ્રથમ સર્ગ) - ૧ થી ૨૫ સ્લોક<br>નૈષઠીયચરિત્ર (પ્રથમ સર્ગ) - ૧ થી ૨૫ સ્લોક | 5              | 30             | 70             | 4                   |
| 3        | C.C.-302    | વેદિક સાહિત્ય- વૃહદારણ્યક ઉપનિષદ (અધ્યાય 1 થી 3)  | 5              | 30             | 70             | 4                   |
| 3        | C.C.-303    | (1) માત્રપદીય (બ્રહ્મકાંઠ) (2) યાગિનીચરિત્ર   | 5              | 30             | 70             | 4                   |
| 3        | C.C.-304    | તર્કભાષા- કેશવમિત્ર   | 5              | 30             | 70             | 4                   |
| 3        | I.D.-305(A) | અલંકારશાસ્ત્ર-ધ્વન્યાલોક (પ્રથમ ઉદ્યોત)<br>ચક્રોત્તિઝીવિતમ્ (પ્રથમ ઉન્મેષ)  | 5              | 30             | 70             | 4                   |
| 3        | I.D.-305(B) | દર્શનશાસ્ત્ર-ન્યાય-વૈશેષિક: ન્યાયસિદ્ધાંતમુક્તાવલી<br>(અનુમાનલ્પક)  | 5              | 30             | 70             | 4                   |
| 3        | I.D.-305(C) | પુરાણશાસ્ત્ર- મ-૨૫પુરાણ નિખલ અંશ અધ્યાય-૧ થી ૧૦, ૧૮૬ થી ૧૮૪   | 5              | 30             | 70             | 4                   |
| 4        | C.C.-401    | તપ્ત સાહિત્ય- કાવ્યચરિતમ્ (મિત્રામોચ્ચકારણ)<br>કાવ્યચરિ (શુક્લાશામદેશ)  | 5              | 30             | 70             | 4                   |
| 4        | C.C.-402    | વેદિક સાહિત્ય- તિરોહ સુક્તો આખ્યાય (પદ્યક)  | 5              | 30             | 70             | 4                   |
| 4        | C.C.-403    | ક્રિતિપત્ર અર્થશાસ્ત્ર - અપિશરણ - V   | 5              | 30             | 70             | 4                   |
| 4        | C.C.-404    | પુરાણિક, અભિલેખ, શિલાલેખ  | 5              | 30             | 70             | 4                   |
| 4        | I.D.-405(A) | અલંકારશાસ્ત્ર-કાવ્યમીમાંસા (1 થી 5 અધ્યાય)  | 5              | 30             | 70             | 4                   |
| 4        | I.D.-405(B) | દર્શનશાસ્ત્ર-તત્ત્વદર્શનસંહ્યા- શ્રીમદ્મહાભારતના પાંચમું - ઝેનમત્,<br>બૌદ્ધમત્  | 5              | 30             | 70             | 4                   |
| 4        | I.D.-405(C) | પુરાણશાસ્ત્ર-અનિરમયણ અધ્યાય ૧ થી ૨૫   | 5              | 30             | 70             | 4                   |

**નોંધ:**

(૧) રેક્રુલર અને એક્સટર્નલ વિદ્યાર્થીઓ માટે આ બધા અભ્યાસક્રમ સમાન રહેશે.

(૨) રેક્રુલર વિદ્યાર્થી માટે કોલેજમાંથી લેવાઈ પરીક્ષાના દરેક પેપરની આંતરિક પરીક્ષાના ૩૦ ગુણમાંથી આંતરિક પરીક્ષાના ૧૫ ગુણ રહેશે.

(૩) સેમિનરના ૧૦ ગુણ ગણાશે, વિષય અંતર્ગત દરેક મિનિટ વક્રવ્ય આપવાનું રહેશે.

(૪) અસાર્ક-મેન્ટના ૫ ગુણ રહેશે. વિદ્યાર્થીએ ફાળવેલા વિષય પર પંદર પૃષ્ઠનું લખાણ આપવાનું રહેશે.

# M.A.: SANSKRIT SYLLABUS

| SEMESTER | COURSE CODE | COURSE NAME [NAME OF PAPER]   | Question Style | Internal Marks | External Marks | Total Course Credit |
|----------|-------------|---|----------------|----------------|----------------|---------------------|
| 1        | C.C.-101    | प्रसिद्ध संस्कृतनाट्यप्रतिઓનો અભ્યાસ<br>અભિજ્ઞાનશાકુન્તલ(કવિદાસ)  | 5              | 30             | 70             | 4                   |
| 1        | C.C.-102    | વેદિક સાહિત્ય-વસ્તુકાંડ નિરૂપણ અધ્યાય - ૧, ૨, ૩નો અભ્યાસ  | 5              | 30             | 70             | 4                   |
| 1        | C.C.-103    | સમીપણ, મહાભારત અને પુરાણ સાહિત્યનો સ્વ-થ પરિચય  | 5              | 30             | 70             | 4                   |
| 1        | C.C.-104    | વેદિક સાહિત્ય (ઉપનિષદો) - ઈશ, કેનઉપનિષદો  | 5              | 30             | 70             | 4                   |
| 1        | I.D.-105(A) | અલંકારશાસ્ત્ર-ભરત નાટ્યશાસ્ત્ર (પ્રથમ, દ્વિતીય તથા ત્રીજા અધ્યાય)   | 5              | 30             | 70             | 4                   |
| 1        | I.D.-105(B) | દર્શનશાસ્ત્ર-પર્વશિલ્પનો યોગસૂત્રો -સમાધિપાદ અને સાધનપાદ  | 5              | 30             | 70             | 4                   |
| 1        | I.D.-105(C) | પુરાણશાસ્ત્ર-અલંકારપુરાણ-સ્કંદ(પૂર્વાર્ધ-અધ્યાય ૧ અને ૪૯)   | 5              | 30             | 70             | 4                   |
| 2        | C.C.-201    | પ્રસિદ્ધ સંસ્કૃતનાટ્યકૃતિ- ઉત્તરરામાયણ  | 5              | 30             | 70             | 4                   |
| 2        | C.C.-202    | વેદિક સાહિત્ય (ઉપનિષદ)-તૈત્તિરીયઉપનિષદ  | 5              | 30             | 70             | 4                   |
| 2        | C.C.-203    | (1)મહાભારત (પરમ્પરાલિખિત) (2) વિદ્વાંતગીમુદી  | 5              | 30             | 70             | 4                   |
| 2        | C.C.-204    | અર્ણવગ્રંથ - ઓગણતો મારક   | 5              | 30             | 70             | 4                   |
| 2        | I.D.-205(A) | અલંકારશાસ્ત્ર- કથકપદ (પ્રથમ તથા દ્વિતીય પ્રકાશ)   | 5              | 30             | 70             | 4                   |
| 2        | I.D.-205(B) | દર્શનશાસ્ત્ર-નેદાન્ત બ્રહ્મસૂત્ર-શાંકરભાષ્ય (1-1)   | 5              | 30             | 70             | 4                   |
| 2        | I.D.-205(C) | પુરાણશાસ્ત્ર-મ-સ્વપુરાણ-નિખલ અંશ અધ્યાય-૧ થી ૩૫, ૪૯ થી ૨૨, ૨૫, ૨૮, ૩૬, ૩૭, ૩૮ થી ૩૯, ૪૦ થી ૪૧, ૪૨, ૪૩, ૪૪, ૪૫, ૪૬, ૪૭, ૪૮, ૪૯                 | 5              | 30             | 70             | 4                   |
| 3        | C.C.-301    | પદ્ય સાહિત્ય- કિરાલામુનીય (પ્રથમ સર્ગ) - ૧ થી ૨૫ સ્લોક<br>શિશુપાલવધ (પ્રથમ સર્ગ) - ૧ થી ૨૫ સ્લોક<br>નૈષઠીયચરિત્ર (પ્રથમ સર્ગ) - ૧ થી ૨૫ સ્લોક | 5              | 30             | 70             | 4                   |
| 3        | C.C.-302    | વેદિક સાહિત્ય- વૃહદારણ્યક ઉપનિષદ (અધ્યાય 1 થી 3)  | 5              | 30             | 70             | 4                   |
| 3        | C.C.-303    | (1) માત્રપદીય (બ્રહ્મકાંઠ) (2) યાગિનીચરિત્ર   | 5              | 30             | 70             | 4                   |
| 3        | C.C.-304    | તર્કભાષા- કેશવમિત્ર   | 5              | 30             | 70             | 4                   |
| 3        | I.D.-305(A) | અલંકારશાસ્ત્ર-ધ્વન્યાલોક (પ્રથમ ઉદ્યોત)<br>ચક્રોત્તીચીવિહમ્ (પ્રથમ ઉન્મેષ)  | 5              | 30             | 70             | 4                   |
| 3        | I.D.-305(B) | દર્શનશાસ્ત્ર-ન્યાય-વૈશેષિક- ન્યાયસિદ્ધાંતમુક્તાવલી<br>(અનુમાનલક્ષણ)   | 5              | 30             | 70             | 4                   |
| 3        | I.D.-305(C) | પુરાણશાસ્ત્ર- મ-સ્વપુરાણ નિખલ અંશ અધ્યાય-૧ થી ૧૦, ૧૮૬ થી ૧૮૪  | 5              | 30             | 70             | 4                   |
| 4        | C.C.-401    | નવમ સાહિત્ય- કાવ્યચરિત્રમ્ (મિત્રામોચ્ચકારણ)<br>કાવ્યચરિત્ર (શુક્લાશામદેશ)  | 5              | 30             | 70             | 4                   |
| 4        | C.C.-402    | વેદિક સાહિત્ય- તિરોહ સુક્તો આખ્યાય (પદ્યકાંઠ)   | 5              | 30             | 70             | 4                   |
| 4        | C.C.-403    | ક્રિતિવપ્તુ અર્થશાસ્ત્ર - અપિશરણ - V  | 5              | 30             | 70             | 4                   |
| 4        | C.C.-404    | પુરાણિક, અભિલેખ, શિલાલેખ  | 5              | 30             | 70             | 4                   |
| 4        | I.D.-405(A) | અલંકારશાસ્ત્ર-કાવ્યમીમાંસા (1 થી 5 અધ્યાય)  | 5              | 30             | 70             | 4                   |
| 4        | I.D.-405(B) | દર્શનશાસ્ત્ર-તત્ત્વવૈજ્ઞાનિક- શ્રીમદ્મહાભારતના પાંચમ - ઝેનમત્,<br>બૌદ્ધમત્  | 5              | 30             | 70             | 4                   |
| 4        | I.D.-405(C) | પુરાણશાસ્ત્ર-અનિરમયણ અધ્યાય ૧ થી ૨૫   | 5              | 30             | 70             | 4                   |

**નોંધ:**

- (૧) રેક્રુલર અને એક્સટર્નલ વિદ્યાર્થીઓ માટે આ બધા અભ્યાસક્રમ સમાન રહેશે.
- (૨) રેક્રુલર વિદ્યાર્થી માટે કોલેજમાંથી લેવાઈ પરીક્ષાના દરેક પેપરની આંતરિક પરીક્ષાના ૩૦ ગુણમાંથી આંતરિક પરીક્ષાના ૧૫ ગુણ રહેશે.
- (૩) સેમિનારના ૧૦ ગુણ ગણાશે, વિષય અંતર્ગત દરેક મિનિટ વક્રવ્ય આપવાનું રહેશે.
- (૪) અસાર્ક-મેન્ટના ૫ ગુણ રહેશે. વિદ્યાર્થીએ ફાળવેલા વિષય પર પંદર પૂકું લખાણ આપવાનું રહેશે.





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The Proposed New Structure for M.Sc. Course is based on choice Based Credit System (CBCS) which is in force from June – 2018

## CBCS Course Pattern

1. This programme is divided into four Semesters (Two Years) . The duration of an academic year consists of two semesters, each of 15 weeks for teaching. The academic session in each semester will provide 90 teaching days. 24 credit each year X 4 semester= 96 credits master level.
2. There will be three categories of courses / papers in this programme :
  - A. Four Compulsory – Core theory courses with 4 credits each in each semester.
  - B. One Choice Based Elective Course (disciplinary / interdisciplinary) with 2 credits in each semester.
  - C. Two Practical's each of Three credits in each semesters .
  - D. In the IV Semester as above a,b,c or instead of above A,B, C ; a student can undertake Three core theory courses (12 - credits) and project / field work (12 - credits), OR Major Dissertation (24 - credits) OR as per decided by BOS.
3. Detailed Course Pattern for each Semester is given bellow.

## M.Sc. : Semester – I PROGRAM : HNGU 2063

| Course  | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach, Hours Per week | Credit point |
|---|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper - I   | Core-I             | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – II  | Core-II            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – III   | Core-III           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – IV  | Core-IV            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – I   | Pract-I            | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – II  | Pract-II           | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One)<br>Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>  |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |



*Jms*  
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### M.Sc. : Semester – II

| Course   | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|--|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – V  | Core-V             | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – VI   | Core-VI            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – VII  | Core-VII           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – VIII   | Core-VIII          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – III                                    | Pract-III          | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – IV                                     | Pract-IV           | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One) Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>   |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

### M.Sc. : Semester – III

| Course   | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|--|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – IX   | Core-IX            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – X  | Core-X             | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XI   | Core-XI            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XII  | Core-XII           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – V                                      | Pract-V            | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – VI                                     | Pract-VI           | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One) Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>   |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

### M.Sc. : Semester – IV

| Course   | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|--|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – XIII   | Core-XIII          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XIV  | Core-XIV           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XV   | Core-XV            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XVI  | Core -XVI          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – VII                                    | Pract-VII          | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – VIII                                   | Pract-VIII         | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One) Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>   |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |



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OR

| Course             | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|--------------------|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – XIII       | Core-XIII          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XIV        | Core-XIV           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XV         | Core-XV            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Major Dissertation |                    |                        | 210        | 90         | 300         | 18                    | 12           |
| <b>TOTAL</b>       |                    |                        | <b>420</b> | <b>180</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

**NOTE :**

1. For 4 credit course: Each syllabus is of 4 Units having equal weightage.
  2. For 2 credit course: Each syllabus is of 2 Units having equal weightage.
  3. There is no section in semester end examinations i.e. questions Paper is without sections.
  4. For question paper of 70 marks: Each Question paper contains 4 questions: Q-1 from unit-I of 18 marks, Q-2 from unit-II of 17 marks, Q-3 from unit-III of 18 marks and last Q-4 from unit-IV of 17 marks from entire course.
  5. For question paper of 50 marks: Each Question paper contains 3 questions: Q-1 from unit-I of 20 marks, Q-2 from unit-II of 20 marks, and last Q-3 is of objective types having 10 marks from entire course.
- [BOS may add some specifications with reference to above structure.]



*[Signature]*  
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## CBCS Course Pattern

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2. There will be three categories of courses / papers in this programme :
  - A. Four Compulsory – Core theory courses with 4 credits each in each semester.
  - B. One Choice Based Elective Course (disciplinary / interdisciplinary) with 2 credits in each semester.
  - C. Two Practical's each of Three credits in each semesters .
  - D. In the IV Semester as above a,b,c or instead of above A,B, C ; a student can undertake Three core theory courses (12 - credits) and project / field work (12 - credits), OR Major Dissertation (24 - credits) OR as per decided by BOS.
3. Detailed Course Pattern for each Semester is given bellow.

## M.Sc. : Semester – I

| Course  | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|---|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper - I   | Core-I             | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper - II  | Core-II            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper - III   | Core-III           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper - IV  | Core-IV            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – I   | Pract-I            | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – II  | Pract-II           | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One)<br>Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>  |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

### M.Sc. : Semester – II

| Course  | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|---|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – V   | Core-V             | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – VI  | Core-VI            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – VII   | Core-VII           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – VIII  | Core-VIII          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – III                                       | Pract-III          | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – IV  | Pract-IV           | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One)<br>Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>  |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

### M.Sc. : Semester – III

| Course  | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|---|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – IX  | Core-IX            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – X   | Core-X             | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XI  | Core-XI            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XII   | Core-XII           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – V   | Pract-V            | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – VI  | Pract-VI           | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One)<br>Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>  |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

### M.Sc. : Semester – IV

| Course  | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|---|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – XIII  | Core-XIII          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XIV   | Core-XIV           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XV  | Core-XV            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XVI   | Core -XVI          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – VII                                       | Pract-VII          | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – VIII                                      | Pract-VIII         | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One)<br>Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>  |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

OR

| Course             | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|--------------------|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – XIII       | Core-XIII          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XIV        | Core-XIV           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XV         | Core-XV            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Major Dissertation |                    |                        | 210        | 90         | 300         | 18                    | 12           |
| <b>TOTAL</b>       |                    |                        | <b>420</b> | <b>180</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

**NOTE :**

1. For 4 credit course: Each syllabus is of 4 Units having equal weightage.
2. For 2 credit course: Each syllabus is of 2 Units having equal weightage.
3. There is no section in semester end examinations i.e. questions Paper is without sections.
4. For question paper of 70 marks: Each Question paper contains 4 questions: Q-1 from unit-I of 18 marks, Q-2 from unit-II of 17 marks, Q-3 from unit-III of 18 marks and last Q-4 from unit-IV of 17 marks from entire course.
5. For question paper of 50 marks: Each Question paper contains 3 questions: Q-1 from unit-I of 20 marks, Q-2 from unit-II of 20 marks, and last Q-3 is of objective types having 10 marks from entire course.

[BOS may add some specifications with reference to above structure.]

**Hemchandracharya North Gujarat University  
MBA Programme**

**Subjects for Semester: I, II, III & IV  
Effective From July: 2019.**

| <b>SEMESTER: I</b>  |  |
|---------------------|--|
| Code                | Subject                                      |
|                     | Core Subjects                                |
| CC101               | Management Process & Organisations Behaviour |
| CC102               | Quantitative Techniques for Management       |
| CC103               | Macro & Micro Economics                      |
| CC104               | Accounting for Managers                      |
| CC105               | Managerial Communication                     |
| CC106               | Computer Applications in Management          |
| CC107               | Yoga & Health                                |
| <b>SEMESTER: II</b> |  |
| Code                | Subject                                      |
|                     | Core Subjects                                |
| CC108               | Business Environment                         |
| CC109               | Cost & Management Accounting                 |
| CC110               | Marketing Management                         |
| CC111               | Financial Management                         |
| CC112               | Production & Operations Management           |
| CC113               | Human Resource Management                    |
| CC114               | Business Research Methodology                |

| <b>SEMESTER: III</b> |  |
|----------------------|--|
| Code                 | Subject                                  |
|                      | Core Subjects                            |
| CC201                | Strategic Management                     |
| CC202                | Legal Aspects of Business                |
| CC203                | Management Research Project: I           |
|                      | Marketing Elective                       |
| MM201                | Advertising & Promotion Management       |
| MM202                | Sales & Distribution Management          |
| MM203                | Consumer Behavior                        |
| MM204                | Strategic Marketing & Brand Management   |
|                      | Finance Elective                         |
| FM201                | Strategic Financial Management           |
| FM202                | Indian Financial Systems                 |
| FM203                | Security Analysis & Portfolio Management |
| FM204                | Banking & Insurance                      |
| <b>SEMESTER: IV</b>  |  |



  
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| Code  | Subject                                      |
|-------|--|
|       | Core Subjects                                |
| CC204 | Entrepreneurship & Management of Innovations |
| CC205 | Management Control Systems                   |
| CC206 | Management Research Project: II              |
|       | Marketing Elective                           |
| MM205 | International Marketing Management           |
| MM206 | Marketing of Services                        |
|       | Finance Elective                             |
| FM205 | International Financial Management           |
| FM206 | Risk Management                              |

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**Hemchandracharya North Gujarat University  
MBA Programme**

**Subjects for Semester: I, II, III & IV  
Effective From July: 2019.**

| <b>SEMESTER: I</b>  |  |
|---------------------|--|
| Code                | Subject                                      |
|                     | Core Subjects                                |
| CC101               | Management Process & Organisations Behaviour |
| CC102               | Quantitative Techniques for Management       |
| CC103               | Macro & Micro Economics                      |
| CC104               | Accounting for Managers                      |
| CC105               | Managerial Communication                     |
| CC106               | Computer Applications in Management          |
| CC107               | Yoga & Health                                |
| <b>SEMESTER: II</b> |  |
| Code                | Subject                                      |
|                     | Core Subjects                                |
| CC108               | Business Environment                         |
| CC109               | Cost & Management Accounting                 |
| CC110               | Marketing Management                         |
| CC111               | Financial Management                         |
| CC112               | Production & Operations Management           |
| CC113               | Human Resource Management                    |
| CC114               | Business Research Methodology                |

| <b>SEMESTER: III</b> |  |
|----------------------|--|
| Code                 | Subject                                  |
|                      | Core Subjects                            |
| CC201                | Strategic Management                     |
| CC202                | Legal Aspects of Business                |
| CC203                | Management Research Project: I           |
|                      | Marketing Elective                       |
| MM201                | Advertising & Promotion Management       |
| MM202                | Sales & Distribution Management          |
| MM203                | Consumer Behavior                        |
| MM204                | Strategic Marketing & Brand Management   |
|                      | Finance Elective                         |
| FM201                | Strategic Financial Management           |
| FM202                | Indian Financial Systems                 |
| FM203                | Security Analysis & Portfolio Management |
| FM204                | Banking & Insurance                      |
| <b>SEMESTER: IV</b>  |  |



  
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| Code  | Subject                                      |
|-------|--|
|       | Core Subjects                                |
| CC204 | Entrepreneurship & Management of Innovations |
| CC205 | Management Control Systems                   |
| CC206 | Management Research Project: II              |
|       | Marketing Elective                           |
| MM205 | International Marketing Management           |
| MM206 | Marketing of Services                        |
|       | Finance Elective                             |
| FM205 | International Financial Management           |
| FM206 | Risk Management                              |

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## M.com Sem-I

| No | Particular                | Credit | Code     | Practical /Theory  |
|----|---------------------------|--------|----------|--------------------|
| 1  | Managerial Economics      | 4      | CC-101   | Theory             |
| 2  | Marketing Management      | 4      | CC-102   | Theory             |
| 3  | Business Research Methods | 4      | CC-103   | Practical + Theory |
| 4  | Financial Management      | 4      | CC 104   | Practical          |
| 5  | E-Commerce                | 4      | SS 105 B | Theory             |

## M.com Sem-II

| No | Particular                        | Credit | Code     | Practical /Theory |
|----|-----------------------------------|--------|----------|-------------------|
| 1  | Financial Market                  | 4      | CC-201   | Theory            |
| 2  | Business Environment              | 4      | CC-202   | Theory            |
| 3  | Financial Accounting & Auditing   | 4      | CE-203 A | Practical         |
| 4  | Cost Accounting-I                 | 4      | CE-204 A | Practical         |
| 5  | Elements of Banking and Insurance | 4      | SS 205 C | Theory            |

## M.com Sem-III

| No | Particular                         | Credit | Code     | Practical /Theory |
|----|------------------------------------|--------|----------|-------------------|
| 1  | Taxation-I (Personal Tax Planning) | 4      | CC-301   | Theory            |
| 2  | Strategic Management               | 4      | CC-302   | Theory            |
| 3  | Cost Accounting-II                 | 4      | CE-303 A | Practical         |
| 4  | Financial Accounting & Auditing-II | 4      | CE-304 A | Practical         |
| 5  | Computerized Accounting Tally - I  | 4      | SS305C   | Practical         |

## M.com Sem-IV

| No | Particular                                 | Credit | Code     | Practical /Theory |
|----|--|--------|----------|-------------------|
| 1  | Taxation-II (Corporate Tax Planning & GST) | 4      | CC-401   | Theory            |
| 2  | International Accounting                   | 4      | CC-402   | Theory            |
| 3  | Management Accounting-I                    | 4      | CE-403A  | Practical         |
| 4  | Management Accounting-II                   | 4      | CE-404 A | Practical         |
| 5  | Computerized Accounting Tally - II         | 4      | SS405C   | Practical         |

## STRUCTURE

**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY**

**PROGRAMME: BBA (GENERAL) (3 Years)**

**Syllabus with effect from: June -2020**

### **SEMESTER – I**

| Course Code | Name of Subject                     | T/<br>P | Credit | Exam Duration in Hrs | Components of Marks |          |       |
|-------------|-------------------------------------|---------|--------|----------------------|---------------------|----------|-------|
|             |                                     |         |        |                      | Internal            | External | Total |
| BBA101      | Principles of Management            | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA102      | Business Communication – I          | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA103      | Fundamentals of Economics           | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA104      | Fundamentals of Accounting          | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA105      | Business Statistics                 | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA106      | Information Technology for Business | T/<br>P | 2T,2P  | 2                    | 30                  | 70       | 100   |
|             |                                     |         | 24     |                      |                     |          |       |

### **SEMESTER – II**

| Course Code | Name of Subject                         | T/<br>P | Credit | Exam Duration in Hrs | Components of Marks |          |       |
|-------------|---|---------|--------|----------------------|---------------------|----------|-------|
|             |   |         |        |                      | Internal            | External | Total |
| BBA201      | Management in Business Organization     | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA202      | Business Communication – II             | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA203      | Business Economics                      | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA204      | Corporate Accounting I                  | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA205      | Business Mathematics                    | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA206      | Practical on Web Designing & Publishing | P       | 4      | 3                    | 30                  | 70       | 100   |
|             |   |         | 24     |                      |                     |          |       |



  
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## STRUCTURE

**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY**

**PROGRAMME: BBA (GENERAL) (3 Years)**

**Syllabus with effect from: June -2021**

### **SEMESTER – III**

| Course Code | Name of Subject                    | T/<br>P | Credit    | Exam Duration in Hrs | Components of Marks |          |       |
|-------------|------------------------------------|---------|-----------|----------------------|---------------------|----------|-------|
|             |                                    |         |           |                      | Internal            | External | Total |
| BBA301      | Integrated Personality Development | T/<br>P | 2T,<br>2P | 2.5                  | 30                  | 70       | 100   |
| BBA302      | Basics of Marketing                | T       | 4         | 2.5                  | 30                  | 70       | 100   |
| BBA303      | Financial Management-I             | T       | 4         | 2.5                  | 30                  | 70       | 100   |
| BBA304      | Corporate Accounting I             | T       | 4         | 2.5                  | 30                  | 70       | 100   |
| BBA305      | Production and Material Management | T       | 4         | 2.5                  | 30                  | 70       | 100   |
| BBA306      | Tally in Accounting                | P       | 4         | 2                    | 30                  | 70       | 100   |
|             |                                    |         | 24        |                      |                     |          |       |

### **SEMESTER – IV**

| Course Code | Name of Subject                  | T/<br>P | Credit | Exam Duration in Hrs | Components of Marks |          |       |
|-------------|----------------------------------|---------|--------|----------------------|---------------------|----------|-------|
|             |                                  |         |        |                      | Internal            | External | Total |
| BBA401      | Human Resource Management        | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA402      | Business Research Methodology -I | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA403      | Marketing Management             | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA404      | Financial Management-II          | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA405      | Management of Small Industries   | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA406      | Advance Excel in Business        | P       | 4      | 2                    | 30                  | 70       | 100   |
|             |                                  |         | 24     |                      |                     |          |       |



  
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**STRUCTURE**

**PROGRAMME: BBA (GENERAL) (3 Years)**

**Syllabus with effect from: June -2022**

**SEMESTER – V**

| Course Code | Name of Subject                     | T/<br>P | Credit | Exam Duration in Hrs | Components of Marks |          |       |
|-------------|-------------------------------------|---------|--------|----------------------|---------------------|----------|-------|
|             |                                     |         |        |                      | Internal            | External | Total |
| BBA501      | Business Research Methodology II    | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA502      | Law Ethics and Management           | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA503      | Taxation I                          | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA504      | Cost Accounting                     | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA505      | Project Management                  | T/<br>P | 3T,1P  | 2.5                  | 30                  | 70       | 100   |
|             | <b>(Elective – Any Two)</b>         |         |        |                      |                     |          |       |
| BBA506      | Advance Financial Management I      | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA507      | Advance Marketing Management I      | T       | 4      | 2.5                  | 30                  | 70       | 100   |
| BBA508      | Advance Human Resource Management I | T       | 4      | 2.5                  | 30                  | 70       | 100   |
|             |                                     |         | 28     |                      |                     |          |       |



  
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**PATAN**

**STRUCTURE****PROGRAMME: BBA (GENERAL) (3 Years)****Syllabus with effect from: June -2022****SEMESTER -VI**

| Course Code | Name of Subject                         | T/<br>P | Credit | Exam Duration<br>in Hrs | Components of Marks |          |       |
|-------------|---|---------|--------|-------------------------|---------------------|----------|-------|
|             |   |         |        |                         | Internal            | External | Total |
| BBA601      | Business Environment                    | T       | 4      | 2.5                     | 30                  | 70       | 100   |
| BBA602      | Management Research Project             | P       | 4      | 2.5                     | 30                  | 70       | 100   |
| BBA603      | Taxation II                             | T       | 4      | 2.5                     | 30                  | 70       | 100   |
| BBA604      | Management Accounting                   | T       | 4      | 2.5                     | 30                  | 70       | 100   |
| BBA605      | Strategic Management                    | T       | 4      | 2.5                     | 30                  | 70       | 100   |
|             | <b>(Elective – Any Two)</b>             |         |        |                         |                     |          |       |
| BBA606      | Advance Financial Management II         | T       | 4      | 2.5                     | 30                  | 70       | 100   |
| BBA607      | Advance Marketing Management II         | T       | 4      | 2.5                     | 30                  | 70       | 100   |
| BBA608      | Advance Human Resource<br>Management II | T       | 4      | 2.5                     | 30                  | 70       | 100   |
|             |   |         | 28     |                         |                     |          |       |

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**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN**  
**C B C S FOR B.COM PROGRAMME Semester - VI**

| COURSE CODE                              | COURSE TYPE   | Title of Course                                 | Credit    | Exam Marks |           |       |  |
|--|---------------|---|-----------|------------|-----------|-------|--|
|  |               |   |           | Internal   | Uni. Exam | Total |  |
| CC-306                                   | Core          | Money, Financial System and Indian Economy - II | 3         | 30         | 70        | 100   |  |
| CC-307                                   | Core          | Fundamentals of Financial Management            | 3         | 30         | 70        | 100   |  |
| CC-308                                   | Core          | Insurance And Stock Exchange Communication      | 3         | 30         | 70        | 100   |  |
|  |               | Commercial Communication ( Optional)-VI         |           |            |           |       |  |
| CC-309                                   | Core          | Business Statistics - II                        | 3         | 30         | 70        | 100   |  |
| CC-310                                   | Core          | Business Laws - II                              | 3         | 30         | 70        | 100   |  |
| <b>Any One Group from the Following</b>  |               |   |           |            |           |       |  |
| CE 303 A                                 | Core Elective | Management Accounting - II                      | 6         | 30         | 70        | 100   |  |
| CE 304 A                                 | Core Elective | Auditing - II                                   |           | 30         | 70        | 100   |  |
| <b>OR</b>                                |               |   |           |            |           |       |  |
| CE 303 B                                 | Core Elective | Fundamentals of Statistics -V                   |           | 30         | 70        | 100   |  |
| CE 304 B                                 | Core Elective | Fundamentals of Statistics -VI                  |           | 30         | 70        | 100   |  |
| <b>OR</b>                                |               |   |           |            |           |       |  |
| CE 303 C                                 | Core Elective | International Marketing                         | 30        | 70         | 100       |       |  |
| CE 303 C                                 | Core Elective | Management of Organized Market                  | 30        | 70         | 100       |       |  |
| <b>Any ONE Course from the Following</b> |               |   |           |            |           |       |  |
| FC 302 A                                 | Foundation    | General Knowledge-2 ( India Level)              | 3         | 30         | 70        | 100   |  |
| FC 302 B                                 | Foundation    | Recent Trends in Management                     |           |            |           |       |  |
| <b>Total Credits</b>                     |               |   | <b>24</b> |            |           |       |  |

  
 Registrar  
 Hemchandracharya



  
 Principal  
 J. H. Patel Arts College &  
 J. K. Patel B. D. V. V. College, Coll.  
 Patan - 389001




# HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

C B C S FOR B.COM PROGRAMME Semester - V

| COURSE CODE                              | COURSE TYPE   | Title of Course                                | Credit    | Exam Marks |           |       |
|--|---------------|--|-----------|------------|-----------|-------|
|  |               |  |           | Internal   | Uni. Exam | Total |
| CC-301                                   | Core          | Money, Financial System and Indian Economy - I | 3         | 30         | 70        | 100   |
| CC-302                                   | Core          | Marketing Management Practices                 | 3         | 30         | 70        | 100   |
| CC-303                                   | Core          | Business Communication ✓                       | 3         | 30         | 70        | 100   |
|  |               | Commercial Communication (Optional)-V          |           |            |           |       |
| CC-304                                   | Core          | Business Statistics - I                        | 3         | 30         | 70        | 100   |
| CC-305                                   | Core          | Business Laws - II                             | 3         | 30         | 70        | 100   |
| <b>Any One Group from the Following</b>  |               |  |           |            |           |       |
| CE 301 A                                 | Core Elective | Cost & Financial Accounting                    | 6         | 30         | 70        | 100   |
| CE 302 A                                 | Core Elective | Management Accounting - I                      |           | 30         | 70        | 100   |
| <b>OR</b>                                |               |  |           |            |           |       |
| CE 301 B                                 | Core Elective | Fundamentals of Statistics - III               |           | 30         | 70        | 100   |
| CE 302 B                                 | Core Elective | Fundamentals of Statistics - IV                |           | 30         | 70        | 100   |
| <b>OR</b>                                |               |  |           |            |           |       |
| CE 301 C                                 | Core Elective | Advanced Finance Management                    | 30        | 70         | 100       |       |
| CE 302 C                                 | Core Elective | Consumer Behavior And Market Segmentation      | 30        | 70         | 100       |       |
| <b>Any ONE Course from the Following</b> |               |  |           |            |           |       |
| FC 301 A                                 | Foundation    | General Knowledge - 1 (Gujarat Level)          | 3         | 30         | 70        | 100   |
| FC 301 B                                 | Foundation    | Total Quality Management                       |           |            |           |       |
| <b>Total Credits</b>                     |               |  | <b>24</b> |            |           |       |

  
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 Hemchandracharya



  
 Principal  
 College of Arts & Commerce  
 Hemchandracharya North Gujarat University, Patan  
 Patan & T. B. Vyas Center, Cell,  
 Patan - 389001

## HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

C B C S FOR B.COM PROGRAMME Semester - IV

| COURSE CODE  | COURSE TYPE      | Title of Course                                | Credit    | Exam Marks |           |       |
|--|------------------|--|-----------|------------|-----------|-------|
|  |                  |  |           | Internal   | Uni. Exam | Total |
| CC-205   | Core             | Business Environment and Economics Policy - II | 3         | 30         | 70        | 100   |
| CC-206   | Core             | Production Management                          | 3         | 30         | 70        | 100   |
| CC-207   | Core             | Taxation-II                                    | 3         | 30         | 70        | 100   |
| CC-208   | Core             | Business Communication                         | 3         | 30         | 70        | 100   |
|  |                  | Commercial Communication ( Optional)-IV        |           |            |           |       |
| <b>Any One Group from the Following</b>  |                  |  |           |            |           |       |
| CE 203 A   | Core Elective    | Cost Accounting – II                           | 6         | 30         | 70        | 100   |
| CE 204 A   | Core Elective    | Auditing – I                                   |           | 30         | 70        | 100   |
| <b>OR</b>  |                  |  |           |            |           |       |
| CE 203 B   | Core Elective    | Basic Statistics - IV                          |           | 30         | 70        | 100   |
| CE 204 B   | Core Elective    | Fundamentals of Statistics – II                |           | 30         | 70        | 100   |
| <b>OR</b>  |                  |  |           |            |           |       |
| CE 203 C   | Core Elective    | Industrial Psychology And Management           | 30        | 70         | 100       |       |
| CE 204 C   | Core Elective    | Distribution Management                        | 30        | 70         | 100       |       |
| <b>Any ONE Course From the Following other than the opted from Core Elective</b> |                  |  |           |            |           |       |
| SE 202 A   | Subject Elective | Cost Accounting - II                           | 3         | 30         | 70        | 100   |
| SE 202 B   | Subject Elective | Basic Statistics - IV                          |           | 30         | 70        | 100   |
| SE 202 C   | Subject Elective | Advance Personal Management                    |           | 30         | 70        | 100   |
| SE 202 D   | Subject Elective | Secretarial Practice – IV                      |           | 30         | 70        | 100   |
| SE 202 E   | Subject Elective | Computer Application – IV                      |           | 30         | 70        | 100   |
| SE 202 F   | Subject Elective | Co-operation - IV                              |           | 30         | 70        | 100   |
| <b>Any ONE Course from the Following</b>   |                  |  |           |            |           |       |
| FC 202 A   | Foundation       | Disaster Management ( Compulsory)              | 3         | 30         | 70        | 100   |
| FC 202 B   | Foundation       | Advertising & Retailing                        |           |            |           |       |
| <b>Total Credits</b>   |                  |  | <b>24</b> |            |           |       |

**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN**  
**C B C S FOR B.COM PROGRAMME Semester - III**

| COURSE CODE  | COURSE TYPE      | Title of Course                               | Credit | Exam Marks |           |       |
|--|------------------|---|--------|------------|-----------|-------|
|  |                  |   |        | Internal   | Uni. Exam | Total |
| CC-201   | Core             | Business Environment and Economics Policy - I | 3      | 30         | 70        | 100   |
| CC-202   | Core             | Indian Financial System                       | 3      | 30         | 70        | 100   |
| CC-203   | Core             | Taxation-I                                    | 3      | 30         | 70        | 100   |
| CC-204   | Core             | Commercial Communication                      | 3      | 30         | 70        | 100   |
|  |                  | Commercial Communication ( Optional)-III      |        |            |           |       |
| <b>Any One Group from the Following</b>  |                  |   |        |            |           |       |
| CE 201 A   | Core Elective    | Cost Accounting – II                          | 6      | 30         | 70        | 100   |
| CE 202 A   | Core Elective    | Corporate Accounting                          |        | 30         | 70        | 100   |
| <b>OR</b>  |                  |   |        |            |           |       |
| CE 201 B   | Core Elective    | Basic Statistics - III                        |        | 30         | 70        | 100   |
| CE 202 B   | Core Elective    | Fundamentals of Statistics – I                |        | 30         | 70        | 100   |
| <b>OR</b>  |                  |   |        |            |           |       |
| CE 201 C   | Core Elective    | Advance Export Marketing ✓                    | 30     | 70         | 100       |       |
| CE 202 C   | Core Elective    | Product Innovation And Product Line ✓         | 30     | 70         | 100       |       |
| <b>Any ONE Course From the Following other than the opted from Core Elective</b> |                  |   |        |            |           |       |
| SE 201 A   | Subject Elective | Cost Accounting - I                           | 3      | 30         | 70        | 100   |
| SE 201 B   | Subject Elective | Basic Statistics - III                        |        | 30         | 70        | 100   |
| SE 201 C   | Subject Elective | Advance Marketing Management                  |        | 30         | 70        | 100   |
| SE 201 D   | Subject Elective | Secretarial Practice – III                    |        | 30         | 70        | 100   |
| SE 201 E   | Subject Elective | Computer Application – II                     |        | 30         | 70        | 100   |
| SE 202 F   | Subject Elective | Co-operation - III                            |        | 30         | 70        | 100   |
| <b>Any ONE Course from the Following</b>   |                  |   |        |            |           |       |
| FC 201 A   | Foundation       | Environmental Studies( Compulsory)            | 3      | 30         | 70        | 100   |
| <b>Total Credits</b>   |                  |   | 24     |            |           |       |



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2.

**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN**  
CBCS FOR B.COM PROGRAMME Semester - II

| COURSE CODE          | COURSE TYPE      | Title of Course                         | Credit    | Exam Marks |           |       |
|----------------------|------------------|---|-----------|------------|-----------|-------|
|                      |                  |   |           | Internal   | Uni. Exam | Total |
| CC-105               | Core             | Fundamentals of Business Economics - II | 3         | 30         | 70        | 100   |
| CC-106               | Core             | Fundamentals of Marketing Management    | 3         | 30         | 70        | 100   |
| CC-107               | Core             | Accountancy - II                        | 4         | 30         | 70        | 100   |
| CC-108               | Core             | Business Correspondence                 | 3         | 30         | 70        | 100   |
|                      |                  | Commercial Communication (Optional)-II  |           |            |           |       |
| CE-102 A             | Core Elective    | Financial Accounting - II               | 4         | 30         | 70        | 100   |
| CE-102 B             | Core Elective    | Operations Research-II                  |           |            |           |       |
| CE-102 C             | Core Elective    | Stress Relief Management                |           |            |           |       |
| SE 102 A             | Subject Elective | Financial Accounting - II               | 3         | 30         | 70        | 100   |
| SE 102 B             | Subject Elective | Operations Research                     |           |            |           |       |
| SE 102 C             | Subject Elective | Computer Application - II               |           |            |           |       |
| SE 102 D             | Subject Elective | Secretarial Practice - II               |           |            |           |       |
| SE 102 E             | Subject Elective | Advance Sales Management                |           |            |           |       |
| SE 102 F             | Subject Elective | Co-operation - II                       |           |            |           |       |
| FC 102 A             | Foundation       | General Insurance                       | 2         | 00         | 50        | 50    |
| FC 102 B             | Foundation       | Sports & Practice                       |           |            |           |       |
| SS 102 A             | Soft Skill       | Indian Constitution - II                |           |            |           |       |
| SS 102 B             | Soft Skill       | Fundamentals of Entrepreneurship - II   | 2         | 00         | 50        | 50    |
| SS 102 C             | Soft Skill       | General English : Grammar & Composition |           |            |           |       |
| <b>Total Credits</b> |                  |   | <b>24</b> |            |           |       |



i/c. Registrar  
Hemchandracharya  
North Gujarat University  
PATAN

Principal  
H. B. Vyas College &  
H. B. Vyas Comm. Coll.  
Patan - Gujarat

1.

**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN**  
**C B C S FOR B.COM PROGRAMME Semester - I**

| COURSE CODE          | COURSE TYPE                             | Title of Course                                | Credit    | Exam Marks |           |       |
|----------------------|---|--|-----------|------------|-----------|-------|
|                      |   |  |           | Internal   | Unl. Exam | Total |
| CC-101               | Core                                    | Fundamentals of Business Economics - I         | 3         | 30         | 70        | 100   |
| CC-102               | Core                                    | Human Resource Management                      | 3         | 30         | 70        | 100   |
| CC-103               | Core                                    | Accountancy - I                                | 4         | 30         | 70        | 100   |
| CC-104               | Core                                    | Communication in Business                      | 3         | 30         | 70        | 100   |
|                      |   | Commercial Communication [ Optional]-I         |           |            |           |       |
| CE-101 A             | Core Elective                           | Financial Accounting - I                       | 4         |            |           |       |
| CE-101 B             | Core Elective                           | Basic Statistics - I<br>(Operation Research-I) |           | 30         | 70        | 100   |
| CE-101 C             | Core Elective                           | Basic Concept of Salesmanship                  |           | 30         | 70        | 100   |
| SE 101 A             | Subject Elective                        | Financial Accounting - I                       | 3         | 30         | 70        | 100   |
| SE 101 B             | Subject Elective                        | Basic Statistics - I                           |           | 30         | 70        | 100   |
| SE 101 C             | Subject Elective                        | Computer Application - I                       |           | 30         | 70        | 100   |
| SE 101 D             | Subject Elective                        | Secretarial Practice - I                       |           | 30         | 70        | 100   |
| SE 101 E             | Subject Elective                        | Advance Business Management                    |           | 30         | 70        | 100   |
| SE 101 F             | Subject Elective Co-Co-<br>Co-operation | Co-operation - I                               |           | 30         | 70        | 100   |
| FC 101 A             | Foundation                              | Tally Accounting                               |           | 00         | 50        | 50    |
| FC 101 B             | Foundation                              | Yoga & Meditation                              |           | 00         | 50        | 50    |
| FC 101 C             | Foundation                              | Fundamentals of Banking - I                    |           | 00         | 50        | 50    |
| SS 101 A             | Soft Skill                              | Indian Constitution - I                        |           | 00         | 50        | 50    |
| SS 101 B             | Soft Skill                              | Fundamentals of Entrepreneurship - I           | 00        | 50         | 50        |       |
| SS 101 C             | Soft Skill                              | General English : Text & Composition           | 00        | 50         | 50        |       |
| <b>Total Credits</b> |   |  | <b>24</b> |            |           |       |



I/c. Registrar  
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North Gujarat University

Principal

Smt. K. Patel Arts College &  
M. Vyas Charit. Coll.



# Hemchandracharya North Gujarat University

Accredited by NAAC with "A" Grade (CGPA 3.02)

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The Proposed New Structure for M.Sc. Course is based on choice Based Credit System (CBCS) which is in force from June – 2018

## CBCS Course Pattern

1. This programme is divided into four Semesters (Two Years) . The duration of an academic year consists of two semesters, each of 15 weeks for teaching. The academic session in each semester will provide 90 teaching days. 24 credit each year X 4 semester= 96 credits master level.
2. There will be three categories of courses / papers in this programme :
  - A. Four Compulsory – Core theory courses with 4 credits each in each semester.
  - B. One Choice Based Elective Course (disciplinary / interdisciplinary) with 2 credits in each semester.
  - C. Two Practical's each of Three credits in each semesters .
  - D. In the IV Semester as above a,b,c or instead of above A,B, C ; a student can undertake Three core theory courses (12 - credits) and project / field work (12 - credits), OR Major Dissertation (24 - credits) OR as per decided by BOS.
3. Detailed Course Pattern for each Semester is given bellow.

## M.Sc. : Semester – I

| Course  | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|---|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper - I   | Core-I             | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper - II  | Core-II            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper - III   | Core-III           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper - IV  | Core-IV            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – I   | Pract-I            | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – II  | Pract-II           | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One)<br>Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>  |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

### M.Sc. : Semester – II

| Course  | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|---|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – V   | Core-V             | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – VI  | Core-VI            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – VII   | Core-VII           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – VIII  | Core-VIII          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – III                                       | Pract-III          | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – IV  | Pract-IV           | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One)<br>Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>  |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

### M.Sc. : Semester – III

| Course  | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|---|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – IX  | Core-IX            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – X   | Core-X             | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XI  | Core-XI            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XII   | Core-XII           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – V   | Pract-V            | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – VI  | Pract-VI           | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One)<br>Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>  |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

### M.Sc. : Semester – IV

| Course  | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|---|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – XIII  | Core-XIII          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XIV   | Core-XIV           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XV  | Core-XV            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XVI   | Core -XVI          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Practical : Paper – VII                                       | Pract-VII          | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Practical : Paper – VIII                                      | Pract-VIII         | 3/4                    | 75         | --         | 75          | 6                     | 3            |
| Elective Course (Any One)<br>Disciplinary / Interdisciplinary |                    | 2 : 00                 | 50         | --         | 50          | 2                     | 2            |
| <b>TOTAL</b>  |                    |                        | <b>480</b> | <b>120</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

OR

| Course             | Name of the Course | Exam. Duration (Hours) | Ext. Marks | Int. Marks | Total Marks | Teach. Hours Per week | Credit point |
|--------------------|--------------------|------------------------|------------|------------|-------------|-----------------------|--------------|
| Paper – XIII       | Core-XIII          | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XIV        | Core-XIV           | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Paper – XV         | Core-XV            | 2 : 30                 | 70         | 30         | 100         | 4                     | 4            |
| Major Dissertation |                    |                        | 210        | 90         | 300         | 18                    | 12           |
| <b>TOTAL</b>       |                    |                        | <b>420</b> | <b>180</b> | <b>600</b>  | <b>30</b>             | <b>24</b>    |

**NOTE :**

1. For 4 credit course: Each syllabus is of 4 Units having equal weightage.
2. For 2 credit course: Each syllabus is of 2 Units having equal weightage.
3. There is no section in semester end examinations i.e. questions Paper is without sections.
4. For question paper of 70 marks: Each Question paper contains 4 questions: Q-1 from unit-I of 18 marks, Q-2 from unit-II of 17 marks, Q-3 from unit-III of 18 marks and last Q-4 from unit-IV of 17 marks from entire course.
5. For question paper of 50 marks: Each Question paper contains 3 questions: Q-1 from unit-I of 20 marks, Q-2 from unit-II of 20 marks, and last Q-3 is of objective types having 10 marks from entire course.

[BOS may add some specifications with reference to above structure.]



a.

**Hemchandracharya**  
**North Gujarat University, Patan.**  
**M.Sc. (Chemistry) (WEF June: 2019).**  
**Semester End Examination**  
**Semester – I**

| Work Load | Paper No.  | Subject                               | External Marks | Internal Marks | Credit |
|-----------|------------|---------------------------------------|----------------|----------------|--------|
| 60 Hrs.   | CHNN-401   | Inorganic Chemistry                   | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-402   | Organic Chemistry                     | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-403   | Physical Chemistry                    | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-404   | Symmetry, Group Theory & Spectroscopy | 70             | 30             | 4      |
| 30 Hrs    | CHNN-405 A | Computers for Chemists                | 35             | 15             | 2      |
| 30 Hrs    | CHNN-405 B | Computational Chemistry               | 35             | 15             | 2      |
| 30 Hrs    | CHNN-405 C | Organic Spectroscopy                  | 35             | 15             | 2      |
| 90 Hrs.   | CHNN-406   | Practical I                           | -----          | -----          | 3      |
| 90 Hrs.   | CHNN-407   | Practical II                          | -----          | -----          | 3      |
| Total     |            |                                       | 465            | 135            | 24     |

\*Each CHNN-406 and CHNN-407 includes 30 marks of viva in the total of 150 marks of viva voce examination. (Details as shown in 15.)

Working per semester minimum 90 days (15 weeks)



*[Signature]*  
 I/c. Registrar  
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 PATAN

**Hemchandracharya**  
**North Gujarat University, Patan.**  
**M.Sc. (Chemistry) (WEF June: 2019).**  
**Semester End Examination**  
**Semester - II**

| Work Load | Paper No.  | Subject                                    | External Marks | Internal Marks | Credit |
|-----------|------------|--|----------------|----------------|--------|
| 60 Hrs.   | CHNN-501   | Inorganic Chemistry                        | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-502   | Organic Chemistry                          | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-503   | Physical Chemistry                         | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-504   | Spectroscopy – part II                     | 70             | 30             | 4      |
| 30 Hrs    | CHNN-505 A | Organotransition Metal Chemistry           | 35             | 15             | 2      |
| 30 Hrs    | CHNN-505 B | Bioinorganic and Supramolecular Chemistry. | 35             | 15             | 2      |
| 90 Hrs.   | CHNN-506   | Practical I                                | -----          | -----          | 3      |
| 90 Hrs.   | CHNN-507   | Practical II                               | -----          | -----          | 3      |
| Total     |            |  | 480            | 120            | 24     |

\*Each CHNN-506 and CHNN-507 includes 30 marks of viva in the total of 150 marks of viva voce examination ( Details as shown in 15.)

Working per semester minimum 90 days (15 weeks)



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 North Gujarat University  
 PATAN

**Hemchandracharya  
North Gujarat University Patan  
M.Sc. (Chemistry) (WEF June: 2020)  
Semester-III**

| Work Load    | Paper No.     | Subject   | External Marks | Internal Marks | Credit |
|--------------|---------------|---|----------------|----------------|--------|
| 60 Hrs.      | CHNN-601-(I)  | Inorganic Spectroscopy Paper-I                                      | 70             | 30             | 4      |
| 60 Hrs.      | CHNN-602-(I)  | Inorganic Chemistry Paper-II  | 70             | 30             | 4      |
| 60 Hrs.      | CHNN-603-(I)  | Inorganic Chemistry Paper-III (Corrosion) or Coordination Chemistry | 70             | 30             | 4      |
| 60 Hrs.      | CHNN-604-(I)  | Inorganic Pharmaceutical and Medicinal Chemistry                    | 70             | 30             | 4      |
| 30 Hrs.      | CHNN-605A-(I) | Environmental Chemistry   | 35             | 15             | 2      |
| 30 Hrs.      | CHNN-605B-(I) | Smart & Nanomaterials   | 35             | 15             | 2      |
| 90 Hrs.      | CHNN-606- (I) | Practical- I  | 75             | -----          | 3      |
| 90 Hrs.      | CHNN-607- (I) | Practical- II   | 75             | -----          | 3      |
| <b>Total</b> |               |   | 465            | 135            | 24     |

➤ Working per semester minimum 90 days(15 weeks)



*(Signature)*  
I/c. Registrar  
Hemchandracharya  
North Gujarat University  
PATAN

**Hemchandracharya**  
**North Gujarat University Patan**  
**M.Sc. (Organic Chemistry) (WEF June: 2020)**  
**M.Sc. Semester-III**

| Work Load | Paper Course Code | No Subject | Course Title                         | External Marks | Internal Marks | Credits |
|-----------|-------------------|------------|--------------------------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-601-(O)      |            | Natural Products                     | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-602-(O)      |            | Industrial Organic Chemistry         | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-603-(O)      |            | Synthetic Drugs                      | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-604-(O)      |            | Selected Topics In Organic Chemistry | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-605A-(O)     |            | Green Chemistry                      | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-605B-(O)     |            | Photo Chemistry                      | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-606-(O)      |            | Organic Chemistry                    | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-607-(O)      |            | Organic Chemistry                    | 75             | -----          | 3       |
|           |                   |            | Total                                | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks)



*(Signature)*  
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**North Gujarat University**  
**PATAN**

**Hemchandracharya**  
**North Gujarat University, Patan**  
**M.Sc. (Physical Chemistry) (New Syllabus WEF June:2020)**  
**M.Sc. Semester-III**

| Work Load | Paper No Course Code       | Course Title Subject | External Marks | Internal Marks | Credits |
|-----------|----------------------------|----------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-601-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-602-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-603-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-604-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-605A-(P)<br>(SE)      | Physical Chemistry   | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-605B-(P)<br>(SE)      | Physical Chemistry   | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-606-(P)<br>Practicals | Physical Chemistry   | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-607-(P)<br>Practical  | Physical Chemistry   | 75             | -----          | 3       |
|           |                            | Total                | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks).



*(Signature)*  
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**North Gujarat University**  
**PATAN**

**Hemchandracharya**  
**North Gujarat University Patan**  
**M.Sc. (Inorganic Chemistry) (WEF June:2020)**  
**Semester-IV**

| Work Load | Paper No.      | Subject   | External Marks | Internal Marks | Credit |
|-----------|----------------|---|----------------|----------------|--------|
| 60 Hrs.   | CHNN-701-(I)   | Inorganic Chemistry Paper-I                       | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-702- (I)  | Inorganic Chemistry Paper-II                      | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-703- (I)  | Corrosion Or Co-ordination Chemistry              | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-704- (I)  | Applications of Inorganic Chemistry in Industries | 70             | 30             | 4      |
| 30 Hrs.   | CHNN-705A- (I) | Fundamentals and Safety in Chemistry Lab          | 35             | 15             | 2      |
| 30 Hrs.   | CHNN-705B- (I) | Biomorganic Chemistry                             | 35             | 15             | 2      |
| 90 Hrs.   | CHNN-706- (I)  | Practical- I                                      | 75             | -----          | 3      |
| 90 Hrs.   | CHNN-707- (I)  | Practical- II                                     | 75             | -----          | 3      |
|           |                | <b>Total</b>                                      | 465            | 135            | 24     |

➤ Working per semester minimum 90 days (15 weeks).



*Hemchandracharya*  
**I/c. Registrar**  
**Hemchandracharya**  
**North Gujarat University**  
**PATAN**

**Hemchandracharya**  
**North Gujarat University Patan**  
**M.Sc. (Organic Chemistry) (WEF June: 2020)**  
**M.Sc. Semester-IV**

| Work Load | Paper Course Code | No | Subject Course Title              | External Marks | Internal Marks | Credits |
|-----------|-------------------|----|-----------------------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-701-(O)      |    | Natural & Stereo Chemistry        | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-702-(O)      |    | Industrial Organic Chemistry      | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-703-(O)      |    | Synthetic Drugs                   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-704-(O)      |    | Selected Topic In Chemistry       | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-705A-(O)     |    | Disconnection Approach            | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-705B-(O)     |    | Chemical Toxicology & Solid Waste | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-706(O) A     |    | Organic Chemistry Practicals      | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-706(O) B     |    | Organic Chemistry Practicals      | 75             | -----          | 3       |
|           |                   |    | Total                             | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks).



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**M.Sc. (Physical Chemistry) (New Syllabus WEF June: 2020)**  
**M.Sc Semester-IV**

| Work Load | Paper No                   | Subject            | External Marks | Internal Marks | Credits |
|-----------|----------------------------|--------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-701-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-702-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-703-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-704-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-705A-(P)              | Physical Chemistry | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-705B-(P)              | Physical Chemistry | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-706-(P)<br>Practicals | Physical Chemistry | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-707-(P)<br>Practicals | Physical Chemistry | 75             | -----          | 3       |
|           |                            | Total              | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks).



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**North Gujarat University, Patan.**  
**M.Sc. (Chemistry) (WEF June: 2019).**  
**Semester End Examination**  
**Semester – I**

| Work Load | Paper No.  | Subject                               | External Marks | Internal Marks | Credit |
|-----------|------------|---------------------------------------|----------------|----------------|--------|
| 60 Hrs.   | CHNN-401   | Inorganic Chemistry                   | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-402   | Organic Chemistry                     | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-403   | Physical Chemistry                    | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-404   | Symmetry, Group Theory & Spectroscopy | 70             | 30             | 4      |
| 30 Hrs    | CHNN-405 A | Computers for Chemists                | 35             | 15             | 2      |
| 30 Hrs    | CHNN-405 B | Computational Chemistry               | 35             | 15             | 2      |
| 30 Hrs    | CHNN-405 C | Organic Spectroscopy                  | 35             | 15             | 2      |
| 90 Hrs.   | CHNN-406   | Practical I                           | -----          | -----          | 3      |
| 90 Hrs.   | CHNN-407   | Practical II                          | -----          | -----          | 3      |
| Total     |            |                                       | 465            | 135            | 24     |

\*Each CHNN-406 and CHNN-407 includes 30 marks of viva in the total of 150 marks of viva voce examination. (Details as shown in 15.)

Working per semester minimum 90 days (15 weeks)



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**M.Sc. (Chemistry) (WEF June: 2019).**  
**Semester End Examination**  
**Semester - II**

| Work Load | Paper No.  | Subject                                    | External Marks | Internal Marks | Credit |
|-----------|------------|--|----------------|----------------|--------|
| 60 Hrs.   | CHNN-501   | Inorganic Chemistry                        | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-502   | Organic Chemistry                          | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-503   | Physical Chemistry                         | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-504   | Spectroscopy – part II                     | 70             | 30             | 4      |
| 30 Hrs    | CHNN-505 A | Organotransition Metal Chemistry           | 35             | 15             | 2      |
| 30 Hrs    | CHNN-505 B | Bioinorganic and Supramolecular Chemistry. | 35             | 15             | 2      |
| 90 Hrs.   | CHNN-506   | Practical I                                | -----          | -----          | 3      |
| 90 Hrs.   | CHNN-507   | Practical II                               | -----          | -----          | 3      |
| Total     |            |  | 480            | 120            | 24     |

\*Each CHNN-506 and CHNN-507 includes 30 marks of viva in the total of 150 marks of viva voce examination ( Details as shown in 15.)

Working per semester minimum 90 days (15 weeks)



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**Semester-III**

| Work Load    | Paper No.     | Subject   | External Marks | Internal Marks | Credit |
|--------------|---------------|---|----------------|----------------|--------|
| 60 Hrs.      | CHNN-601-(I)  | Inorganic Spectroscopy Paper-I                                      | 70             | 30             | 4      |
| 60 Hrs.      | CHNN-602-(I)  | Inorganic Chemistry Paper-II  | 70             | 30             | 4      |
| 60 Hrs.      | CHNN-603-(I)  | Inorganic Chemistry Paper-III (Corrosion) or Coordination Chemistry | 70             | 30             | 4      |
| 60 Hrs.      | CHNN-604-(I)  | Inorganic Pharmaceutical and Medicinal Chemistry                    | 70             | 30             | 4      |
| 30 Hrs.      | CHNN-605A-(I) | Environmental Chemistry   | 35             | 15             | 2      |
| 30 Hrs.      | CHNN-605B-(I) | Smart & Nanomaterials   | 35             | 15             | 2      |
| 90 Hrs.      | CHNN-606- (I) | Practical- I  | 75             | -----          | 3      |
| 90 Hrs.      | CHNN-607- (I) | Practical- II   | 75             | -----          | 3      |
| <b>Total</b> |               |   | 465            | 135            | 24     |

➤ Working per semester minimum 90 days(15 weeks)



  
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**M.Sc. (Organic Chemistry) (WEF June: 2020)**  
**M.Sc. Semester-III**

| Work Load | Paper Course Code | No Subject | Course Title                         | External Marks | Internal Marks | Credits |
|-----------|-------------------|------------|--------------------------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-601-(O)      |            | Natural Products                     | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-602-(O)      |            | Industrial Organic Chemistry         | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-603-(O)      |            | Synthetic Drugs                      | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-604-(O)      |            | Selected Topics In Organic Chemistry | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-605A-(O)     |            | Green Chemistry                      | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-605B-(O)     |            | Photo Chemistry                      | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-606-(O)      |            | Organic Chemistry Practicals         | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-607-(O)      |            | Organic Chemistry Practicals         | 75             | -----          | 3       |
|           |                   |            | Total                                | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks)



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**M.Sc. (Physical Chemistry) (New Syllabus WEF June:2020)**  
**M.Sc. Semester-III**

| Work Load | Paper No Course Code       | Course Title Subject | External Marks | Internal Marks | Credits |
|-----------|----------------------------|----------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-601-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-602-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-603-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-604-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-605A-(P)<br>(SE)      | Physical Chemistry   | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-605B-(P)<br>(SE)      | Physical Chemistry   | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-606-(P)<br>Practicals | Physical Chemistry   | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-607-(P)<br>Practical  | Physical Chemistry   | 75             | -----          | 3       |
|           |                            | Total                | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks).



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**M.Sc. (Inorganic Chemistry) (WEF June:2020)**  
**Semester-IV**

| Work Load | Paper No.      | Subject   | External Marks | Internal Marks | Credit |
|-----------|----------------|---|----------------|----------------|--------|
| 60 Hrs.   | CHNN-701-(I)   | Inorganic Chemistry Paper-I                       | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-702- (I)  | Inorganic Chemistry Paper-II                      | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-703- (I)  | Corrosion Or Co-ordination Chemistry              | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-704- (I)  | Applications of Inorganic Chemistry in Industries | 70             | 30             | 4      |
| 30 Hrs.   | CHNN-705A- (I) | Fundamentals and Safety in Chemistry Lab          | 35             | 15             | 2      |
| 30 Hrs.   | CHNN-705B- (I) | Biomorganic Chemistry                             | 35             | 15             | 2      |
| 90 Hrs.   | CHNN-706- (I)  | Practical- I                                      | 75             | -----          | 3      |
| 90 Hrs.   | CHNN-707- (I)  | Practical- II                                     | 75             | -----          | 3      |
|           |                | <b>Total</b>                                      | 465            | 135            | 24     |

➤ Working per semester minimum 90 days (15 weeks).



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North Gujarat University Patan  
M.Sc. (Organic Chemistry) (WEF June: 2020)  
M.Sc. Semester-IV**

| Work Load | Paper Course Code | No | Subject Course Title              | External Marks | Internal Marks | Credits |
|-----------|-------------------|----|-----------------------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-701-(O)      |    | Natural & Stereo Chemistry        | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-702-(O)      |    | Industrial Organic Chemistry      | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-703-(O)      |    | Synthetic Drugs                   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-704-(O)      |    | Selected Topic In Chemistry       | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-705A-(O)     |    | Disconnection Approach            | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-705B-(O)     |    | Chemical Toxicology & Solid Waste | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-706(O) A     |    | Organic Chemistry Practicals      | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-706(O) B     |    | Organic Chemistry Practicals      | 75             | -----          | 3       |
|           |                   |    | Total                             | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks).



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M.Sc. (Physical Chemistry) (New Syllabus WEF June: 2020)  
M.Sc Semester-IV**

| Work Load | Paper No                   | Subject            | External Marks | Internal Marks | Credits |
|-----------|----------------------------|--------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-701-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-702-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-703-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-704-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-705A-(P)              | Physical Chemistry | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-705B-(P)              | Physical Chemistry | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-706-(P)<br>Practicals | Physical Chemistry | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-707-(P)<br>Practicals | Physical Chemistry | 75             | -----          | 3       |
|           |                            | Total              | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks).



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### M. Sc. Semester I

| Course             | Course code                                  | Paper title  | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|--|--|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | MBCC-101                                     | Cell Biology   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | MBCC-102                                     | Molecular Biology and Genetics   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | MBCC-103                                     | Biodiversity and Ecology   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | MBCC-104                                     | Microbial Taxonomy   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | MBPR-101                                     | Cell Biology, Molecular Biology and Genetics   | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | MBPR-102                                     | Biodiversity, Ecology and Microbial Taxonomy   | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Elective Course    | MBEC-101<br>OR<br>MBEC-102<br>OR<br>MBEC-103 | Bioinformatics - 1<br><br>Agriculture Microbiology -1<br><br>Soil and Water Microbiology-1 | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
| Total              |  |  |                       | 465            | 135            | 600         | 30                      | 24            |



  
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## M. Sc. Semester II

| Course             | Course code                                    | Paper title  | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|--|--|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | MBCC -201                                      | Biochemistry   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | MBCC-202                                       | Instrumentation and Analytical Techniques  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | MBCC-203                                       | Biostatistics and Research Methodology   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | MBCC-204                                       | Bioprocess and Biochemical Engineering   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | MBPR-201                                       | Biochemistry, Instrumentation and Analytical Techniques                                    | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | MBPR -202                                      | Biostatistics, Research Methodology and Bioprocess and Biochemical Engineering             | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Elective Course    | MBEC-201<br>OR<br>MBEC -202<br>OR<br>MBEC -203 | Bioinformatics - 2<br><br>Bio-Fertilizer Technology-2<br><br>Soil and Water Microbiology-2 | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
| Total              |  |  |                       | 465            | 135            | 600         | 30                      | 24            |



  
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### M. Sc. Semester III

| Course             | Paper code                                   | Paper title   | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|--|---|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | MBCC-301                                     | Bacteriology and Virology   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | MBCC-302                                     | Genetics of Bacteria and Bacteriophages   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | MBCC-303                                     | Microbial Physiology and Development  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | MBCC-304                                     | Fundamental of Infection and Immunity   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | MB-PR-301                                    | Bacteriology and Virology & Genetics of Bacteria and Bacteriophages                             | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | MB-PR-302                                    | Microbial Physiology and Development & Fundamental of Infection and Immunity                    | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Elective Course    | MBEC-301<br>OR<br>MSEC-302<br>OR<br>MSEC-303 | Microbial Diversity and Extremophiles<br>Microbial Genomics and Proteomics<br>Enzyme Technology | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
| Total              |  |   |                       | 480            | 135            | 600         | 30                      | 24            |



  
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## M. Sc. Semester IV

| Course             | Paper code     | Paper title                                       | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|----------------|---|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | MBCC-401       | Recombinant DNA Technology                        | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | MBCC-402       | Medical Microbiology                              | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | MBCC-403       | Food Microbiology                                 | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | MBCC-404       | Environmental Microbiology                        | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | MBPR-401       | Recombinant DNA Technology & Medical Microbiology | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | MBPR-402       | Food Microbiology & Environmental Microbiology    | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Elective Course    | MBEC-401       | Drug Discovery and Clinical Research              | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
|                    | OR<br>MSEC-402 | Dairy Microbiology                                |                       |                |                |             |                         |               |
|                    | OR<br>MSEC-403 | Microbial Ecology                                 |                       |                |                |             |                         |               |
| Total              |                |   |                       | 480            | 135            | 600         | 30                      | 24            |

OR

| Course       | code        | Internal evaluation (200 marks) |                          |            | External evaluation (400 marks) |              |           |                  | Total |
|--------------|-------------|---------------------------------|--------------------------|------------|---------------------------------|--------------|-----------|------------------|-------|
|              |             | Mid-term presentation           | Mid-term progress report | Attendance | Thesis                          | presentation | Viva-voce | Soft skill paper |       |
| Dissertation | MSMB-DI-401 | 50                              | 100                      | 50         | 200                             | 50           | 100       | 50               | 600   |

\*Mid- term progress report: mid-term progress report should contain introduction, review of literature, methodology of dissertation work and obtained results till date.



  
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### M. Sc. Semester I

| Course             | Course code                                     | Paper title   | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|---|---|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | ENVCC-101                                       | Cell Biology  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | ENVCC -102                                      | Molecular Biology and Genetics  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | ENVCC -103                                      | Biodiversity and Ecology  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | ENVCC -104                                      | Fundamentals of Environmental Science   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | ENVPR-101                                       | Cell Biology, Molecular Biology and Genetics  | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | ENVPR-102                                       | Biodiversity, Ecology and Fundamentals of Environmental Science   | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Elective Course    | ENVEC-101<br>OR<br>ENVEC-102<br>OR<br>ENVEC-103 | Wildlife and Conservation Biology - 1<br><br>Fisheries and Aquaculture -1<br><br>Environmentally Sound Technologies-1 | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
| Total              |   |   |                       | 465            | 135            | 600         | 30                      | 24            |



  
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## M. Sc. Semester II

| Course             | Course code                                     | Paper title   | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|---|---|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | ENVCC -201                                      | Biochemistry  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | ENVCC -202                                      | Instrumentation and Analytical Techniques   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | ENVCC -203                                      | Biostatistics and Research Methodology  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | ENVCC -204                                      | Environmental Chemistry   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | ENVPR-201                                       | Biochemistry, Instrumentation and Analytical Techniques   | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | ENVPR-202                                       | Biostatistics, Research Methodology and Environmental Chemistry   | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Elective Course    | ENVEC-201<br>OR<br>ENVEC-202<br>OR<br>ENVEC-203 | Wildlife and Conservation Biology - 2<br><br>Fisheries and Aquaculture -2<br><br>Environmentally sound technologies-2 | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
| Total              |   |   |                       | 465            | 135            | 600         | 30                      | 24            |



  
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PROGRAM : HNGU 2069

M. Sc. Semester III

| Course             | Paper code   | Paper title  | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|--|--|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | ENVCC-301  | Environmental Health and Disaster Management   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | ENVCC-302  | Environmental Monitoring and Management System   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | ENVCC-303  | Ecological Assessment Techniques, RS & GIS   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | ENVCC-304  | Environmental Law, Impact Assessment & Audit   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | ENVPR-301  | Lab -3 based on 301 and 302  | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | ENVPR-302  | Lab -4 based on 303 and 304  | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Elective Course    | ENVEC -301<br>OR<br>ENVEC -302<br>OR<br>ENVEC -303 | Wildlife and Conservation Biology- 3<br>Fisheries and Aquaculture -3<br>Environmentally Sound Technologies-3 | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
| Total              |  |  |                       | 480            | 120            | 600         | 30                      | 24            |



  
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**PROGRAM : HNGU 2069**

**M. Sc. Semester IV**

| Course             | Paper code      | Paper title                                   | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|-----------------|---|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | ENVCC-401       | Environmental Biotechnology                   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | ENVCC-402       | Industrial safety and Toxicology              | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | ENVCC-403       | Natural Resource Management                   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | ENVCC-404       | Renewable energy and Carbon offset management | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | ENVPR-401       | Lab 5- based on 401 and 402                   | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | ENVPR-402       | Lab 6 based on 403 and 404                    | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Elective Course    | ENVEC-401       | Wildlife and Conservation Biology - 4         | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
|                    | OR<br>ENVEC-402 | Fisheries and Aquaculture-4                   |                       |                |                |             |                         |               |
|                    | OR<br>ENVEC-403 | Environmentally Sound Technologies-4          |                       |                |                |             |                         |               |
| Total              |                 |   |                       | 480            | 120            | 600         | 30                      | 24            |

**OR**

| Course       | Code       | Internal evaluation (200 marks) |                          |            | External evaluation (400 marks) |              |           |                  | Total |
|--------------|------------|---------------------------------|--------------------------|------------|---------------------------------|--------------|-----------|------------------|-------|
|              |            | Mid-term presentation           | Mid-term progress report | Attendance | Thesis                          | Presentation | Viva-voce | Soft skill paper |       |
| Dissertation | ENV-DI-401 | 50                              | 100                      | 50         | 200                             | 50           | 100       | 50               | 600   |

\*Mid- term Progress Report: Mid-term progress report should contain introduction, review of literature, methodology of dissertation work and obtained results till date.



  
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### M. Sc. Semester I

| Course             | Course code                                     | Paper title  | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|---|--|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | ZOCC-101  | Cell Biology   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | ZOCC -102                                       | Molecular Biology and Genetics   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | ZOCC -103                                       | Biodiversity and Ecology   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | ZOCC -104                                       | Animal Taxonomy-1  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | ZOOPR-101                                       | Cell Biology, Molecular Biology and Genetics   | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | ZOOPR-102                                       | Biodiversity, Ecology and Animal Taxonomy-1  | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Elective Course    | ZOOEC-101<br>OR<br>ZOOEC-102<br>OR<br>ZOOEC-103 | Wildlife and Conservation Biology -1<br><br>Fisheries and Aquaculture -1<br><br>Environmentally Sound Technologies-1 | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
| Total              |   |  |                       | 465            | 135            | 600         | 30                      | 24            |



  
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## M. Sc. Semester II

| Course             | Course code                                     | Paper title   | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|---|---|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | ZOCC-201  | Biochemistry  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | ZOCC-202  | Instrumentation and Analytical Techniques   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | ZOCC-203  | Biostatistics and Research Methodology  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | ZOCC-204  | Animal Taxonomy -2  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | ZOOPR-201                                       | Biochemistry, Instrumentation and Analytical Techniques   | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | ZOOPR-202                                       | Biostatistics, Research Methodology and Animal taxonomy -2  | More than 4 hours     | 75             |                | 75          | 6                       | 3             |
| Elective Course    | ZOOEC-201<br>OR<br>ZOOEC-202<br>OR<br>ZOOEC-203 | Wildlife and Conservation Biology - 2<br><br>Fisheries and Aquaculture -2<br><br>Environmentally Sound Technologies-2 | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
| Total              |   |   |                       | 465            | 135            | 600         | 30                      | 24            |



  
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### M. Sc. Semester III

| Course             | Paper code                                      | Paper title  | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|---|--|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | ZOCC-301  | Animal Physiology  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | ZOCC-302  | Immunology and Endocrinology   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | ZOCC-303  | Advance Techniques in Zoology  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | ZOCC-304  | Developmental Biology and Evolution  | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | ZOOPR-301                                       | Animal Physiology, Immunology and Endocrinology  | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | ZOOPR-302                                       | Advance Techniques in Zoology, Developmental Biology and Evolution   | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Elective Course    | ZOEC -301<br>OR<br>ZOEC -302<br>OR<br>ZOEC -303 | Wildlife and Conservation Biology- 3<br><br>Fisheries and Aquaculture -3<br><br>Environmentally Sound Technologies-3 | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
| Total              |   |  |                       | 480            | 120            | 600         | 30                      | 24            |



### M. Sc. Semester IV

| Course             | Paper code     | Paper title  | Exam duration (Hours) | External marks | Internal marks | Total marks | Teaching hours per week | Credit points |
|--------------------|----------------|--|-----------------------|----------------|----------------|-------------|-------------------------|---------------|
| Paper-I            | ZOCC-401       | Animal Behaviour   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-II           | ZOCC-402       | Histology, Histochemistry and Parasitology                   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-III          | ZOCC-403       | Entomology   | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Paper-IV           | ZOCC-404       | Toxicology and Environmental Biology                         | 2.30                  | 70             | 30             | 100         | 4                       | 4             |
| Practical Paper-I  | ZOOPR-401      | Animal Behaviour, Histology, Histochemistry and Parasitology | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Practical Paper-II | ZOOPR-402      | Entomology, Toxicology and Environmental Biology             | 3/4                   | 75             |                | 75          | 6                       | 3             |
| Elective Course    | ZOEC-401       | Wildlife and Conservation Biology - 4                        | 2.00                  | 35             | 15             | 50          | 2                       | 2             |
|                    | OR<br>ZOEC-402 | Fisheries and Aquaculture-4                                  |                       |                |                |             |                         |               |
|                    | OR<br>ZOEC-403 | Environmentally Sound Technologies-4                         |                       |                |                |             |                         |               |
| Total              |                |  |                       | 480            | 120            | 600         | 30                      | 24            |

OR

| Course       | code         | Internal evaluation (200 marks) |                          |            | External evaluation (400 marks) |              |           |                  | Total |
|--------------|--------------|---------------------------------|--------------------------|------------|---------------------------------|--------------|-----------|------------------|-------|
|              |              | Mid-term presentation           | Mid-term progress report | Attendance | Thesis                          | presentation | Viva-voce | Soft skill paper |       |
| Dissertation | MSZOO-DI-401 | 50                              | 100                      | 50         | 200                             | 50           | 100       | 50               | 600   |

\*Mid- term progress report: mid-term progress report should contain introduction, review of literature, methodology of dissertation work and obtained results till date.



### Proposed Details of Course pattern and scheme of examination

| Sem.      | Course  | Interaction<br>(hr/week) | Duration<br>of Exam(hrs) | Marks    |            |            | Credit     |
|-----------|---|--------------------------|--------------------------|----------|------------|------------|------------|
|           |   |                          |                          | Internal | External   | Total      |            |
| Sem-I     | Core Paper-I                                      | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core Paper-II                                     | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core Paper-III                                    | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core paper-IV                                     | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Elective disciplinary/Interdisciplinary Paper-I   | 2                        | 2.00                     | 15       | 35         | 50         | 2          |
|           | Practical (Based on core paper-I & II, III & IV)  | 6                        | 10 (5X2 days)            | -        | 150        | 150        | 6          |
|           | <b>Total</b>                                      |                          | <b>24</b>                |          | <b>135</b> | <b>465</b> | <b>600</b> |
| Sem-II    | Core Paper-V                                      | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core paper-VI                                     | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core paper-VII                                    | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core Paper-VIII                                   | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Elective disciplinary/Interdisciplinary Paper-II  | 2                        | 2.00                     | 15       | 35         | 50         | 2          |
|           | Practical (Based on core paper-V&VI,VII&VIII)     | 6                        | 10 (5X2 days)            | -        | 150        | 150        | 6          |
|           | <b>Total</b>                                      |                          | <b>24</b>                |          | <b>135</b> | <b>465</b> | <b>600</b> |
| Sem-III   | Core Paper-IX                                     | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core paper-X                                      | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core paper-XI                                     | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core paper-XII                                    | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Elective disciplinary/Interdisciplinary Paper-III | 2                        | 2.00                     | 15       | 35         | 50         | 2          |
|           | Practical (Based on core paper-IX & X, XI & XII)  | 6                        | 10 (5X2 days)            | -        | 150        | 150        | 6          |
|           | <b>Total</b>                                      |                          | <b>24</b>                |          | <b>135</b> | <b>465</b> | <b>600</b> |
| Sem-IV    | Core Paper-XIII                                   | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core Paper-XIV                                    | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core Paper-XV                                     | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core Paper-XVI                                    | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Elective disciplinary/Interdisciplinary Paper-IV  | 2                        | 2.00                     | 15       | 35         | 50         | 2          |
|           | Practical (Based on core paper-)                  | 6                        | 10 (5X2 days)            | -        | 150        | 150        | 6          |
|           | <b>Total</b>                                      |                          | <b>24</b>                |          | <b>135</b> | <b>465</b> | <b>600</b> |
| <b>OR</b> |   |                          |                          |          |            |            |            |
| Sem-IV    | Core Paper-XIII                                   | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core Paper-XIV                                    | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Core Paper-XV                                     | 4                        | 2.30                     | 30       | 70         | 100        | 4          |
|           | Minor Dissertation                                | 12                       | 10 (5X2 days)            | -        | 300        | 300        | 12         |
|           | <b>Total</b>                                      |                          | <b>24</b>                |          | <b>90</b>  | <b>510</b> | <b>600</b> |
| <b>OR</b> |   |                          |                          |          |            |            |            |
| Sem-IV    | Major Dissertation                                | 24                       | 15 (5X3 days)            | -        | 600        | 600        | 24         |
|           | <b>Total</b>                                      | <b>24</b>                |                          |          | <b>600</b> | <b>600</b> | <b>24</b>  |



  
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# Programme Outline

**Introduction:** The Post Graduate Diploma in medical laboratory technology is professional programme with opportunities in Various Government & Private Health sector, Pharm Industry, Clinical Research organization.

**Eligibility :** Graduate in any Life sciences subject and chemistry

**Admission :** Strictly on merit basis(95% seats reserved for students of H. N. G. University & 05% seats for Universities other than H. N. G. University)

**Terms :** June to Nov. & Dec. to April (Semester and CBCS System)

## Examination Pattern

| Sem | Paper Code | Paper Type | Paper Name  | Marking scheme |     |          |     | Credit | Total |
|-----|------------|------------|---|----------------|-----|----------|-----|--------|-------|
|     |            |            |   | External       |     | Internal |     |        |       |
|     |            |            |   | The            | Pra | The      | Pra |        |       |
| 1   | PGDMT101CC | CC         | Introduction to Profession and Hematology         | 70             |     | 30       |     | 4      | 100   |
| 1   | PGDMT102CC | CC         | Introduction to Human body and Clinical Pathology | 70             |     | 30       |     | 4      | 100   |
| 1   | PGDMT103CC | CC         | Clinical Biochemistry                             | 70             |     | 30       |     | 4      | 100   |
| 1   | PGDMT101PR | PR         | Lab I<br>(Practicals based upon 101 to 103 paper) |                | 150 |          |     | 6      | 150   |
| 1   | PGDMT101ES | ES         | Advances in TB, HIV and Malaria diagnostic        | 50             |     |          |     | 2      | 50    |
| 2   | PGDMT201CC | CC         | Serology and histopathology                       | 70             |     | 30       |     | 4      | 100   |
| 2   | PGDMT202CC | CC         | Advance diagnostic techniques                     | 70             |     | 30       |     | 4      | 100   |
| 2   | PGDMT203CC | CC         | Clinical Microbiology                             | 70             |     | 30       |     | 4      | 100   |
| 2   | PGDMT201PR | PR         | Practicals based upon 201 to 203 paper            |                | 150 |          |     | 6      | 150   |
| 2   | PGDMT201ES | ES         | Clinical Research                                 | 50             |     |          |     | 2      | 50    |

**Internal exam:** Marks for internal assessment only for core theory papers shall be awarded on the basis of attendance/regularity/punctuality, seminars, Poster presentations, viva-voce, field work/library work/academic tour, MCQ's tests, quiz competitions, assignments etc.

**Passing Standard:** 40 %

**Class and Grade:** Class and Grade as per the HNGU university common rules and regulation

## હેમચંદ્રાચાર્ય ઉત્તર ગુજરાત યુનિવર્સિટી, પાટણ

પી.જી.ડી.પી.એમ. ઈન યોગ એજ્યુકેશન- P.G.D.Y.ED સેમેસ્ટર-૧

(અ) સૈદ્ધાંતિક (થીયરી) વિભાગ :

| ક્રમ                 | વિષય કોડ       | વિષય નામ                           | ક્રેડિટ | અધ્યાપન કલાક/અઠવાડિયું | આંતરિક ગુણ | બાહ્ય ગુણ | કુલ ગુણ |
|----------------------|----------------|------------------------------------|---------|------------------------|------------|-----------|---------|
| ૧.                   | P.G.D.Y.ED 101 | યોગ વિજ્ઞાન-૧                      | ૪       | ૩+૧=૪                  | ૩૦         | ૭૦        | ૧૦૦     |
| ૨.                   | P.G.D.Y.ED 102 | યોગ અને શરીર રચના ક્રિયા વિજ્ઞાન   | ૪       | ૩+૧=૪                  | ૩૦         | ૭૦        | ૧૦૦     |
| ૩.                   | P.G.D.Y.ED 103 | યોગ માનસિક સ્વાસ્થ્ય અને માનસોપચાર | ૪       | ૩+૧=૪                  | ૩૦         | ૭૦        | ૧૦૦     |
| ૪.                   | P.G.D.Y.ED 104 | યોગ અને આયુર્વેદોપચાર              | ૪       | ૩+૧=૪                  | ૩૦         | ૭૦        | ૧૦૦     |
| ઈલેક્ટીવ (ગમે તે એક) |                |                                    |         |                        |            |           |         |
| ૫.                   | P.G.D.Y.ED 105 | ૧.વ્યક્તિત્વ વિકાસ અથવા            | ૪       | ૩+૧=૪                  | ૩૦         | ૭૦        | ૧૦૦     |
|                      |                | ૨.રમત વિજ્ઞાન                      | ૪       | ૩+૧=૪                  | ૩૦         | ૭૦        | ૧૦૦     |
| કુલ                  |                |                                    | ૨૦      | ૧૫+૫=૨૦                | ૧૫૦        | ૩૫૦       | ૫૦૦     |

(બ) પ્રાયોગિક-કૌશલ્ય વિભાગ :

| ક્રમ | વિષય કોડ       | કૌશલ્ય જૂથ                      | ક્રેડિટ | અધ્યાપન કલાક/અઠવાડિયું | આંતરિક ગુણ | બાહ્ય ગુણ | કુલ ગુણ |
|------|----------------|---------------------------------|---------|------------------------|------------|-----------|---------|
| ૧    | P.G.D.Y.ED 106 | ૧.સૂર્યનમસ્કાર અને આસનો         | ૪       | ૩+૧=૪                  | ૨૦         | ૮૦        | ૧૦૦     |
|      |                | ૨. પ્રાણાયામ, બંધ મુદ્રા ષટકર્મ | ૨       | ૨                      | ૧૦         | ૪૦        | ૫૦      |
|      |                | ૩.કર્મયોગ                       | ૨       | ૨                      | ૧૦         | ૪૦        | ૫૦      |
| કુલ  |                |                                 | ૮       | ૭+૧=૮                  | ૪૦         | ૧૬૦       | ૨૦૦     |



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ડિપ્લોમા ઈન યોગ એજ્યુકેશન- P.G.D.Y.ED સેમેસ્ટર-૨

(અ) શૈક્ષણિક (થીયરી) વિભાગ :

| ક્રમ                 | વિષય કોડ       | વિષય નામ                                     | ક્રેડિટ | અધ્યાપન ક્લાક/અઠવાડીયું | આંતરિક ગુણ | બાહ્ય ગુણ | કુલ ગુણ |
|----------------------|----------------|--|---------|-------------------------|------------|-----------|---------|
| ૧.                   | P.G.D.Y.ED 201 | યોગ વિજ્ઞાન-૨                                | ૪       | ૩+૧=૪                   | ૩૦         | ૭૦        | ૧૦૦     |
| ૨.                   | P.G.D.Y.ED 202 | યોગ અને આરોગ્ય વિજ્ઞાન                       | ૪       | ૩+૧=૪                   | ૩૦         | ૭૦        | ૧૦૦     |
| ૩.                   | P.G.D.Y.ED 203 | નિરાર્ગોપચાર એક્યુપ્રેશર અને પ્રાથમિક સારવાર | ૪       | ૩+૧=૪                   | ૩૦         | ૭૦        | ૧૦૦     |
| ૪.                   | P.G.D.Y.ED 204 | યોગ શિક્ષણમાં પદ્ધતિઓ અને મેનેજમેન્ટ         | ૪       | ૩+૧=૪                   | ૩૦         | ૭૦        | ૧૦૦     |
| ઈલેક્ટીવ (ગમે તે એક) |                |  |         |                         |            |           |         |
| ૫.                   | P.G.D.Y.ED 205 | ૧.યુવા અને સામાજિક કલ્યાણ અથવા               | ૪       | ૩+૧=૪                   | ૩૦         | ૭૦        | ૧૦૦     |
|                      |                | ૨.પર્યાવરણ અને આપત્તિ વ્યવસ્થાપન             | ૪       | ૩+૧=૪                   | ૩૦         | ૭૦        | ૧૦૦     |
| કુલ                  |                |  | ૨૦      | ૧૫+૫=૨૦                 | ૧૫૦        | ૩૫૦       | ૫૦૦     |

(બ) પ્રાયોગિક- પાઠ આયોજન:

| ક્રમ | વિષય કોડ       | પાઠ આયોજન જૂથ                    | ક્રેડિટ | અધ્યાપન ક્લાક/અઠવાડીયું | આંતરિક ગુણ | બાહ્ય ગુણ | કુલ ગુણ |
|------|----------------|----------------------------------|---------|-------------------------|------------|-----------|---------|
| ૧    | P.G.D.Y.ED 206 | ૧.આસન                            | ૪       | ૩+૧=૪                   | ૩૦         | ૭૫        | ૧૦૫     |
|      |                | ૨. પૂટકર્મ, પ્રાણાયામ, બંધમુદ્રા | ૪       | ૨                       | ૨૦         | ૭૫        | ૯૫      |
| કુલ  |                |                                  | ૮       |                         | ૫૦         | ૧૫૦       | ૨૦૦     |



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**HEMCHANDRACHARYA  
NORTH GUJARAT UNIVERSITY  
PATAN-384265**

**M.Sc. Electronics - SEMESTER - I Syllabus (CBCS Pattern)**  
**(Effective from June 2018)**

| Sem | Paper Code | Paper Type | Paper Name                                   | Marking scheme |     |          |     | Credit | Total | Remarks                   |
|-----|------------|------------|--|----------------|-----|----------|-----|--------|-------|---------------------------|
|     |            |            |  | External       |     | Internal |     |        |       |                           |
|     |            |            |  | The            | Pra | The      | Pra |        |       |                           |
| 1   | MSELE101CC | CC         | MATHEMATICAL PHYSICS-1 AND "C" PROGRAMMING-1 | 70             |     | 30       |     | 4      | 100   |                           |
| 1   | MSELE102CC | CC         | SOLID STATE PHYSICS-1 AND ELECTRODYNAMICS-1  | 70             |     | 30       |     | 4      | 100   |                           |
| 1   | MSELE103CC | CC         | DIGITAL ELECTRONICS CONCEPT                  | 70             |     | 30       |     | 4      | 100   |                           |
| 1   | MSELE104CC | CC         | BASIC ELECTRONICS -1                         | 70             |     | 30       |     | 4      | 100   |                           |
| 1   |            | PRACT      |  |                | 50  |          |     | 2      | 50    |                           |
| 1   |            | PRACT      |  |                | 50  |          |     | 2      | 50    |                           |
| 1   |            | Project    |  |                | 50  |          |     | 2      | 50    |                           |
| 1   | MSELE101ES | ES         | SPACE PHYSICS                                | 50             |     |          |     | 2      | 50    | Any one from Two ES PAPER |
| 1   | MSELE102ES | ES         | ENERGY TECHNOLOGY AND STORAGE SYSTEMS (ETS)  | 50             |     |          |     | 2      | 50    |                           |



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**M.Sc. Electronics - SEMESTER - II Syllabus (CBCS Pattern)**  
**(Effective from June 2018)**

| Sem | Paper Code | Paper Type | Paper Name   | Marking scheme |     |          |     | Credit | Total | Remarks                   |
|-----|------------|------------|--|----------------|-----|----------|-----|--------|-------|---------------------------|
|     |            |            |  | External       |     | Internal |     |        |       |                           |
|     |            |            |  | The            | Pra | The      | Pra |        |       |                           |
| 2   | MSELE201CC | CC         | COMMUNICATION-I AND "C" PROGRAMMING-2                      | 70             |     | 30       |     | 4      | 100   |                           |
| 2   | MSELE202CC | CC         | TRANSDUCER, POWER SUPPLY AND COMPUTER-1                    | 70             |     | 30       |     | 4      | 100   |                           |
| 2   | MSELE203CC | CC         | OPAMP, ACTIVE FILTERS, PLL AND ADVANCE DIGITAL ELECTRONICS | 70             |     | 30       |     | 4      | 100   |                           |
| 2   | MSELE204CC | CC         | MICROPROCESSOR-8085  | 70             |     | 30       |     | 4      | 100   |                           |
| 2   |            | PRACT      |  |                | 50  |          |     | 2      | 50    |                           |
| 2   |            | PRACT      |  |                | 50  |          |     | 2      | 50    |                           |
| 2   |            | Project    |  |                | 50  |          |     | 2      | 50    |                           |
| 2   | MSELE201ES | ES         | APPLICATION OF COMPUTER                                    | 50             |     |          |     | 2      | 50    | Any one from Two ES PAPER |
| 2   | MSELE202ES | ES         | SYNTHESIS OF MATERIALS                                     | 50             |     |          |     | 2      | 50    |                           |

**MSELE201CC: COMMUNICATION-I AND "C" PROGRAMMING-2**

**Unit-1:**

**Modulation:**

Amplitude modulation, Frequency modulation and Phase modulation

**Methods of Amplitude Modulation**

Transistor modulators- (Collector modulation, Base modulation, push-pull modulation and class C stage, FET drain modulator) FET square modulation, Balanced modulator, single side band (S.S.B.) generation

**Demodulation**



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**M.Sc. Electronics - SEMESTER - III Syllabus (CBCS Pattern)**  
**(Effective from June 2018)**

| Sem | Paper Code | Paper Type | Paper Name  | Marking scheme |     |          |     | Credit | Total | Remarks                   |
|-----|------------|------------|---|----------------|-----|----------|-----|--------|-------|---------------------------|
|     |            |            |   | External       |     | Internal |     |        |       |                           |
|     |            |            |   | The            | Pra | The      | Pra |        |       |                           |
| 3   | MSELE301CC | CC         | COMPUTER-2 AND INSTRUMENTS                                  | 70             |     | 30       |     | 4      | 100   |                           |
| 3   | MSELE302CC | CC         | MICROPROCESSOR PERIPHERALS AND ADVANCE MICROPROCESSORS      | 70             |     | 30       |     | 4      | 100   |                           |
| 3   | MSELE303CC | CC         | COMMUNICATION-II  | 70             |     | 30       |     | 4      | 100   |                           |
| 3   | MSELE304CC | CC         | DIGITAL COMMUNICATION, REMOTE SENSING AND POWER ELECTRONICS | 70             |     | 30       |     | 4      | 100   |                           |
| 3   |            | PRACT      |   |                | 50  |          |     | 2      | 50    |                           |
| 3   |            | PRACT      |   |                | 50  |          |     | 2      | 50    |                           |
| 3   |            | Project    |   |                | 50  |          |     | 2      | 50    |                           |
| 3   | MSELE301ES | ES         | RESEARCH METHODOLOGY  | 50             |     |          |     | 2      | 50    | Any one from Two ES PAPER |
| 3   | MSELE302ES | ES         | PROGRAMMING IN C++  | 50             |     |          |     | 2      | 50    |                           |

**MSELE301CC : COMPUTER-2 AND INSTRUMENTS**

**UNIT-I**

**MICRO-SOFT EXCEL :**

Introduction to spreadsheets, Use of spreadsheets, spreadsheets basics, Labels, Values and Functions, Formula, Functions, What-if analysis, Automatic recalculation, formatting spreadsheet, graphs.



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**M.Sc. Electronics - SEMESTER - IV Syllabus (CBCS Pattern)**  
**(Effective from June 2018)**

| Sem | Paper Code | Paper Type | Paper Name                                | Marking scheme |     |          |     | Credit | Total | Remarks |
|-----|------------|------------|---|----------------|-----|----------|-----|--------|-------|---------|
|     |            |            |   | External       |     | Internal |     |        |       |         |
|     |            |            |   | The            | Pra | The      | Pra |        |       |         |
| 4   | MSELE401CC | CC         | BIOPHYSICS AND BIOMEDICAL INSTRUMENTATION | 70             |     | 30       |     | 4      | 100   |         |
| 4   | MSELE402CC | CC         | Microwave Electronics                     | 70             |     | 30       |     | 4      | 100   |         |
| 4   | MSELE403CC | CC         | Microcontroller                           | 70             |     | 30       |     | 4      | 100   |         |
| 4   |            | PROJECT    | Major Project/Dissertation                | 210            |     | 90       | -   | 12     | 300   |         |

**MSELE401CC: BIOPHYSICS AND BIOMEDICAL INSTRUMENTATION**

**UNIT-1:**

**Physiological Instrumentation:**

Introduction to Anatomy and Physiology of human body; Measurement systems; Transducers; Biopotentials; Blood pressure measurement; Bioelectric signals measurements : ECG, EMG, EOG & ERG

**Bioelectronics and Biosensors :**

Principles and application of Bioelectronics and Biosensors ; Impact of Electronics on Man and Biosphere

**UNIT-2:**

**Imaging Technology:**

Imaging Fundamentals and Mathematics; Projection X radiography; Computerized tomography; Gamma camera; Nuclear magnetic resonance imaging; Ultrasound imaging; Doppler ultrasound, CT Scan

**Medical Laboratory Instruments :**

Blood - blood tests - colorimeter - flame photometer- blood cell counter pH/ blood gas; analyzer - chromatography - hem dialysis and machine

**UNIT-3**

**Separation Techniques:**

Introduction, Chromatography, Column chromatography, Thin layer chromatography, Paper chromatography, Adsorption chromatography, Partition chromatography, Gas liquid chromatography (GLC) , Ion exchange chromatography, Molecular exclusion chromatography, Affinity chromatography



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**North Gujarat University, Patan.**  
**M.Sc. (Chemistry) (WEF June: 2019).**  
**Semester End Examination**  
**Semester – I**

| Work Load | Paper No.  | Subject                               | External Marks | Internal Marks | Credit |
|-----------|------------|---------------------------------------|----------------|----------------|--------|
| 60 Hrs.   | CHNN-401   | Inorganic Chemistry                   | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-402   | Organic Chemistry                     | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-403   | Physical Chemistry                    | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-404   | Symmetry, Group Theory & Spectroscopy | 70             | 30             | 4      |
| 30 Hrs    | CHNN-405 A | Computers for Chemists                | 35             | 15             | 2      |
| 30 Hrs    | CHNN-405 B | Computational Chemistry               | 35             | 15             | 2      |
| 30 Hrs    | CHNN-405 C | Organic Spectroscopy                  | 35             | 15             | 2      |
| 90 Hrs.   | CHNN-406   | Practical I                           | -----          | -----          | 3      |
| 90 Hrs.   | CHNN-407   | Practical II                          | -----          | -----          | 3      |
| Total     |            |                                       | 465            | 135            | 24     |

\*Each CHNN-406 and CHNN-407 includes 30 marks of viva in the total of 150 marks of viva voce examination. (Details as shown in 15.)

Working per semester minimum 90 days (15 weeks)



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**M.Sc. (Chemistry) (WEF June: 2019).**  
**Semester End Examination**  
**Semester - II**

| Work Load | Paper No.  | Subject                                    | External Marks | Internal Marks | Credit |
|-----------|------------|--|----------------|----------------|--------|
| 60 Hrs.   | CHNN-501   | Inorganic Chemistry                        | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-502   | Organic Chemistry                          | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-503   | Physical Chemistry                         | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-504   | Spectroscopy – part II                     | 70             | 30             | 4      |
| 30 Hrs    | CHNN-505 A | Organotransition Metal Chemistry           | 35             | 15             | 2      |
| 30 Hrs    | CHNN-505 B | Bioinorganic and Supramolecular Chemistry. | 35             | 15             | 2      |
| 90 Hrs.   | CHNN-506   | Practical I                                | -----          | -----          | 3      |
| 90 Hrs.   | CHNN-507   | Practical II                               | -----          | -----          | 3      |
| Total     |            |  | 480            | 120            | 24     |

\*Each CHNN-506 and CHNN-507 includes 30 marks of viva in the total of 150 marks of viva voce examination ( Details as shown in 15.)

Working per semester minimum 90 days (15 weeks)



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**M.Sc. (Chemistry) (WEF June: 2020)**  
**Semester-III**

| Work Load    | Paper No.     | Subject   | External Marks | Internal Marks | Credit |
|--------------|---------------|---|----------------|----------------|--------|
| 60 Hrs.      | CHNN-601-(I)  | Inorganic Spectroscopy Paper-I                                      | 70             | 30             | 4      |
| 60 Hrs.      | CHNN-602-(I)  | Inorganic Chemistry Paper-II  | 70             | 30             | 4      |
| 60 Hrs.      | CHNN-603-(I)  | Inorganic Chemistry Paper-III (Corrosion) or Coordination Chemistry | 70             | 30             | 4      |
| 60 Hrs.      | CHNN-604-(I)  | Inorganic Pharmaceutical and Medicinal Chemistry                    | 70             | 30             | 4      |
| 30 Hrs.      | CHNN-605A-(I) | Environmental Chemistry   | 35             | 15             | 2      |
| 30 Hrs.      | CHNN-605B-(I) | Smart & Nanomaterials   | 35             | 15             | 2      |
| 90 Hrs.      | CHNN-606- (I) | Practical- I  | 75             | -----          | 3      |
| 90 Hrs.      | CHNN-607- (I) | Practical- II   | 75             | -----          | 3      |
| <b>Total</b> |               |   | 465            | 135            | 24     |

➤ Working per semester minimum 90 days(15 weeks)



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**M.Sc. (Organic Chemistry) (WEF June: 2020)**  
**M.Sc. Semester-III**

| Work Load | Paper Course Code | No Subject | Course Title                         | External Marks | Internal Marks | Credits |
|-----------|-------------------|------------|--------------------------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-601-(O)      |            | Natural Products                     | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-602-(O)      |            | Industrial Organic Chemistry         | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-603-(O)      |            | Synthetic Drugs                      | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-604-(O)      |            | Selected Topics In Organic Chemistry | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-605A-(O)     |            | Green Chemistry                      | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-605B-(O)     |            | Photo Chemistry                      | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-606-(O)      |            | Organic Chemistry Practicals         | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-607-(O)      |            | Organic Chemistry Practicals         | 75             | -----          | 3       |
|           |                   |            | Total                                | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks)



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**M.Sc. (Physical Chemistry) (New Syllabus WEF June:2020)**  
**M.Sc. Semester-III**

| Work Load | Paper No Course Code       | Course Title Subject | External Marks | Internal Marks | Credits |
|-----------|----------------------------|----------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-601-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-602-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-603-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-604-(P)               | Physical Chemistry   | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-605A-(P)<br>(SE)      | Physical Chemistry   | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-605B-(P)<br>(SE)      | Physical Chemistry   | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-606-(P)<br>Practicals | Physical Chemistry   | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-607-(P)<br>Practical  | Physical Chemistry   | 75             | -----          | 3       |
|           |                            | Total                | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks).



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**M.Sc. (Inorganic Chemistry) (WEF June:2020)**  
**Semester-IV**

| Work Load | Paper No.      | Subject   | External Marks | Internal Marks | Credit |
|-----------|----------------|---|----------------|----------------|--------|
| 60 Hrs.   | CHNN-701-(I)   | Inorganic Chemistry Paper-I                       | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-702- (I)  | Inorganic Chemistry Paper-II                      | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-703- (I)  | Corrosion Or Co-ordination Chemistry              | 70             | 30             | 4      |
| 60 Hrs.   | CHNN-704- (I)  | Applications of Inorganic Chemistry in Industries | 70             | 30             | 4      |
| 30 Hrs.   | CHNN-705A- (I) | Fundamentals and Safety in Chemistry Lab          | 35             | 15             | 2      |
| 30 Hrs.   | CHNN-705B- (I) | Biomorganic Chemistry                             | 35             | 15             | 2      |
| 90 Hrs.   | CHNN-706- (I)  | Practical- I                                      | 75             | -----          | 3      |
| 90 Hrs.   | CHNN-707- (I)  | Practical- II                                     | 75             | -----          | 3      |
|           |                | <b>Total</b>                                      | 465            | 135            | 24     |

➤ Working per semester minimum 90 days (15 weeks).



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M.Sc. (Organic Chemistry) (WEF June: 2020)  
M.Sc. Semester-IV**

| Work Load | Paper Course Code | No | Subject Course Title              | External Marks | Internal Marks | Credits |
|-----------|-------------------|----|-----------------------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-701-(O)      |    | Natural & Stereo Chemistry        | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-702-(O)      |    | Industrial Organic Chemistry      | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-703-(O)      |    | Synthetic Drugs                   | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-704-(O)      |    | Selected Topic In Chemistry       | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-705A-(O)     |    | Disconnection Approach            | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-705B-(O)     |    | Chemical Toxicology & Solid Waste | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-706(O) A     |    | Organic Chemistry Practicals      | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-706(O) B     |    | Organic Chemistry Practicals      | 75             | -----          | 3       |
|           |                   |    | Total                             | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks).



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M.Sc. (Physical Chemistry) (New Syllabus WEF June: 2020)  
M.Sc Semester-IV**

| Work Load | Paper No                   | Subject            | External Marks | Internal Marks | Credits |
|-----------|----------------------------|--------------------|----------------|----------------|---------|
| 60 Hrs.   | CHNN-701-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-702-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-703-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 60 Hrs.   | CHNN-704-(P)               | Physical Chemistry | 70             | 30             | 4       |
| 30 Hrs.   | CHNN-705A-(P)              | Physical Chemistry | 35             | 15             | 2       |
| 30 Hrs.   | CHNN-705B-(P)              | Physical Chemistry | 35             | 15             | 2       |
| 90 Hrs.   | CHNN-706-(P)<br>Practicals | Physical Chemistry | 75             | -----          | 3       |
| 90 Hrs.   | CHNN-707-(P)<br>Practicals | Physical Chemistry | 75             | -----          | 3       |
|           |                            | Total              | 465            | 135            | 24      |

➤ Working per semester minimum 90 days (15 weeks).



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**ANNEXURE: I****PROGRAMME OF STUDIES LEADING TO THE DEGREE OF  
MASTER OF HOSPITAL MANAGEMENT**

| FIRST YEAR   |             | SEMESTER - I                                     |           |
|--------------|-------------|--|-----------|
| Sr.No.       | Course Code | Course Title                                     | Credits   |
| 1.           | HM101       | Healthcare Environment & Policies                | 3         |
| 2.           | HM102       | Principles of Management                         | 3         |
| 3.           | HM103       | Organizational Behavior                          | 3         |
| 4.           | HM104       | Accounting for Hospitals                         | 3         |
| 5.           | HM105       | Health Economics: Managerial Aspects             | 3         |
| 6.           | HM106       | Communication Skills                             | 3         |
| 7.           | HM107       | Computer Applications in Hospital Administration | 3         |
| 8.           | HM108       | Epidemiology and Demography                      | 3         |
| 9.           | HM109       | Hospital Visits/Orientation                      | 3         |
| <b>Total</b> |             |  | <b>27</b> |

**\*Hospital Visits:** Students shall be taken on a visit to a minimum of 3 Hospitals of different category, Govt. Hospital, Trust Hospital, Single specialty Hospital, and Corporate Hospitals and spend around 50 hours which includes the visit time and the report writing time and presentations of the visits. Evaluation will be based on the attendance, reports and presentations by the students. At least two of the Hospital should have more than 100 beds. It will remain compulsory requirement to every students to visit hospitals as per above, otherwise the student would not be taken to 2<sup>nd</sup> Year.

| FIRST YEAR   |             | SEMESTER - II                                     |           |
|--------------|-------------|---|-----------|
| Sr.No.       | Course Code | Course Title                                      | Credits   |
| 1.           | HM110       | Marketing of Hospital Services                    | 3         |
| 2.           | HM111       | Financial Management for Hospital Administration  | 3         |
| 3.           | HM112       | Human Resources Management in Hospitals           | 3         |
| 4.           | HM113       | Statistics/Biostatistics for Hospital Management  | 3         |
| 5.           | HM114       | Purchase Management & Inventory control           | 3         |
| 6.           | HM115       | Research Methods for Hospital                     | 3         |
| 7.           | HM116       | Quality Management, Accreditation & Legal Aspects | 3         |
| 8.           | HM117       | Health Law and Ethics                             | 3         |
| 9.           | HM118       | Know Your Hospital                                | 3         |
| <b>Total</b> |             |   | <b>27</b> |



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**ANNEXURE: I****PROGRAMME OF STUDIES LEADING TO THE DEGREE OF  
MASTER OF HOSPITAL MANAGEMENT**

| <b>FIRST YEAR</b> |                    | <b>SEMESTER - I</b>                              |                |
|-------------------|--------------------|--|----------------|
| <b>Sr.No.</b>     | <b>Course Code</b> | <b>Course Title</b>                              | <b>Credits</b> |
| 1.                | HM101              | Healthcare Environment & Policies                | 3              |
| 2.                | HM102              | Principles of Management                         | 3              |
| 3.                | HM103              | Organizational Behavior                          | 3              |
| 4.                | HM104              | Accounting for Hospitals                         | 3              |
| 5.                | HM105              | Health Economics: Managerial Aspects             | 3              |
| 6.                | HM106              | Communication Skills                             | 3              |
| 7.                | HM107              | Computer Applications in Hospital Administration | 3              |
| 8.                | HM108              | Epidemiology and Demography                      | 3              |
| 9.                | HM109              | Hospital Visits/Orientation                      | 3              |
| <b>Total</b>      |                    |  | <b>27</b>      |

**\*Hospital Visits:** Students shall be taken on a visit to a minimum of 3 Hospitals of different category, Govt. Hospital, Trust Hospital, Single specialty Hospital, and Corporate Hospitals and spend around 50 hours which includes the visit time and the report writing time and presentations of the visits. Evaluation will be based on the attendance, reports and presentations by the students. At least two of the Hospital should have more than 100 beds. It will remain compulsory requirement to every students to visit hospitals as per above, otherwise the student would not be taken to 2<sup>nd</sup> Year.

| <b>FIRST YEAR</b> |                    | <b>SEMESTER - II</b>                              |                |
|-------------------|--------------------|---|----------------|
| <b>Sr.No.</b>     | <b>Course Code</b> | <b>Course Title</b>                               | <b>Credits</b> |
| 1.                | HM110              | Marketing of Hospital Services                    | 3              |
| 2.                | HM111              | Financial Management for Hospital Administration  | 3              |
| 3.                | HM112              | Human Resources Management in Hospitals           | 3              |
| 4.                | HM113              | Statistics/Biostatistics for Hospital Management  | 3              |
| 5.                | HM114              | Purchase Management & Inventory control           | 3              |
| 6.                | HM115              | Research Methods for Hospital                     | 3              |
| 7.                | HM116              | Quality Management, Accreditation & Legal Aspects | 3              |
| 8.                | HM117              | Health Law and Ethics                             | 3              |
| 9.                | HM118              | Know Your Hospital                                | 3              |
| <b>Total</b>      |                    |   | <b>27</b>      |



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**SECOND YEAR ----- SEMESTER - III**

| Sr.No.              | Course Code | Course Title                                | Credits   |
|---------------------|-------------|---|-----------|
| 1.                  | HM201:      | Strategic Management for Hospitals          | 3         |
| 2.                  | HM202:      | Strategic Cost Management for Hospitals     | 3         |
| 3.                  | HM203:      | Management of Clinical and Nursing Services | 3         |
| 4.                  | HM204:      | Hospital Support Services                   | 3         |
| 5.                  | HM205:      | Risk & Disaster Management                  | 3         |
| 6.                  | HM206:      | Health Insurance & Services                 | 3         |
| 7.                  | HM207:      | Hospital Information System                 | 3         |
| 8.                  | HM208:      | Hospital Facilities Planning & Management   | 3         |
| 9.                  | HM209:      | Summer Project Report and Viva-Voce         | 3         |
| <b>Total Credit</b> |             |   | <b>27</b> |

**SECOND YEAR ----- SEMESTER - IV**

| Sr.No.              | Course Code | Course Title                                | Credits   |
|---------------------|-------------|---|-----------|
| 1.                  | HM210:      | Dissertation with Viva-Voce (Minor Project) | 06        |
| 2.                  | HM211:      | Dissertation with Viva-Voce (Major Project) | 12        |
| <b>Total Credit</b> |             |   | <b>18</b> |



  
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**SECOND YEAR ----- SEMESTER - III**

| Sr.No.              | Course Code | Course Title                                | Credits   |
|---------------------|-------------|---|-----------|
| 1.                  | HM201:      | Strategic Management for Hospitals          | 3         |
| 2.                  | HM202:      | Strategic Cost Management for Hospitals     | 3         |
| 3.                  | HM203:      | Management of Clinical and Nursing Services | 3         |
| 4.                  | HM204:      | Hospital Support Services                   | 3         |
| 5.                  | HM205:      | Risk & Disaster Management                  | 3         |
| 6.                  | HM206:      | Health Insurance & Services                 | 3         |
| 7.                  | HM207:      | Hospital Information System                 | 3         |
| 8.                  | HM208:      | Hospital Facilities Planning & Management   | 3         |
| 9.                  | HM209:      | Summer Project Report and Viva-Voce         | 3         |
| <b>Total Credit</b> |             |   | <b>27</b> |

**SECOND YEAR ----- SEMESTER - IV**

| Sr.No.              | Course Code | Course Title                                | Credits   |
|---------------------|-------------|---|-----------|
| 1.                  | HM210:      | Dissertation with Viva-Voce (Minor Project) | 06        |
| 2.                  | HM211:      | Dissertation with Viva-Voce (Major Project) | 12        |
| <b>Total Credit</b> |             |   | <b>18</b> |



  
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