

2016

THE MASTER OF PHARMACY (M. PHARM.) COURSE REGULATION 2014

(BASED ON NOTIFICATION IN THE GAZETTE OF INDIA No. 362, DATED DECEMBER 11, 2014)

SCHEME AND SYLLABUS



PHARMACY COUNCIL OF INDIA

Combined Council's Building, Kotla Road,
Aiwan-E-Ghalib Marg, New Delhi-110 002.
Website : www.pci.nic.

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PHARMACY COUNCIL OF INDIA NOTIFICATION

New Delhi, the 10th December, 2014

The Master of Pharmacy (M.Pharm) Course Regulations, 2014

No. 14-136/ 2014-PCI.—In exercise of the powers conferred by Sections 10 and 18 of the Pharmacy Act, 1948 (8 of 1948), the Pharmacy Council of India, with the approval of the Central Government hereby makes the following regulations; namely—

CHAPTER –I:REGULATIONS

1. Short Title and Commencement

These regulations shall be called as “The Revised Regulations for the Master of Pharmacy (M. Pharm.)Degree Program - Credit Based Semester System (CBSS) of the Pharmacy Council of India, New Delhi”. They shall come into effect from the Academic Year 2016-17. The regulations framed are subject to modifications from time to time by the authorities of the university.

2. Minimum qualification for admission

A Pass in the following examinations

a) B. Pharm Degree examination of an Indian university established by law in India from an institution approved by Pharmacy Council of India and has scored not less than 55 % of the maximum marks (aggregate of 4 years of B.Pharm.)

b) Every student, selected for admission to post graduate pharmacy program in any PCI approved institution should have obtained registration with the State Pharmacy Council or should obtain the same within one month from the date of his/her admission, failing which the admission of the candidate shall be cancelled.

Note: It is mandatory to submit a migration certificate obtained from the respective university where the candidate had passed his/her qualifying degree (B.Pharm.)

3. Duration of the program

The program of study for M.Pharm. shall extend over a period of four semesters (two academic years). The curricula and syllabi for the program shall be prescribed from time to time by Pharmacy Council of India, New Delhi.

4. Medium of instruction and examinations

Medium of instruction and examination shall be in English.

5. Working days in each semester

Each semester shall consist of not less than 100 working days. The odd semesters shall be conducted from the month of June/July to November/December and the even semesters shall be conducted from the month of December/January to May/June in every calendar year.

6. Attendance and progress

A candidate is required to put in at least 80% attendance in individual courses considering theory and practical separately. The candidate shall complete the prescribed course satisfactorily to be eligible to appear for the respective examinations.

7. Program/Course credit structure

As per the philosophy of Credit Based Semester System, certain quantum of academic work viz. theory classes, practical classes, seminars, assignments, etc. are measured in terms of credits. On satisfactory completion of the courses, a candidate earns credits. The amount of credit associated with a course is dependent upon the number of hours of instruction per week in that course. Similarly the credit associated with any of the other academic, co/extra-curricular activities is dependent upon the quantum of work expected to be put in for each of these activities per week/per activity.

7.1. Credit assignment

7.1.1. Theory and Laboratory courses

Courses are broadly classified as Theory and Practical. Theory courses consist of lecture (L) and Practical (P) courses consist of hours spent in the laboratory. Credits (C) for a course is dependent on the number of hours of instruction per week in that course, and is obtained by using a multiplier of one (1) for lecture and a multiplier of half (1/2) for practical (laboratory) hours. Thus, for example, a theory course having four lectures per week throughout the semester carries a credit of 4. Similarly, a practical having four laboratory hours per week throughout semester carries a credit of 2.

The contact hours of seminars, assignments and research work shall be treated as that of practical courses for the purpose of calculating credits. i.e., the contact hours shall be multiplied by 1/2. Similarly, the contact hours of journal club, research work presentations and discussions with the supervisor shall be considered as theory course and multiplied by 1.

7.2. Minimum credit requirements

The minimum credit points required for the award of M. Pharm. degree is 95. However based on the credit points earned by the students under the head of co-curricular activities, a student shall earn a maximum of 100 credit points. These credits are divided into Theory courses, Practical, Seminars, Assignments, Research work, Discussions with the supervisor, Journal club and Co-Curricular activities over the duration of four semesters. The credits

are distributed semester-wise as shown in Table 14. Courses generally progress in sequence, building competencies and their positioning indicates certain academic maturity on the part of the learners. Learners are expected to follow the semester-wise schedule of courses given in the syllabus.

8. Academic work

A regular record of attendance both in Theory, Practical, Seminar, Assignment, Journal club, Discussion with the supervisor, Research work presentation and Dissertation shall be maintained by the department / teaching staff of respective courses.

9. Course of study

The specializations in M.Pharm program is given in Table 1.

Table – 1: List of M.Pharm. Specializations and their Code

| S. No. | Specialization | Code |
|--------|-----------------------------------|------|
| 1. | Pharmaceutics | MPH |
| 2. | Industrial Pharmacy | MIP |
| 3. | Pharmaceutical Chemistry | MPC |
| 4. | Pharmaceutical Analysis | MPA |
| 5. | Pharmaceutical Quality Assurance | MQA |
| 6. | Pharmaceutical Regulatory Affairs | MRA |
| 7. | Pharmaceutical Biotechnology | MPB |
| 8. | Pharmacy Practice | MPP |
| 9. | Pharmacology | MPL |
| 10. | Pharmacognosy | MPG |

The course of study for M.Pharm specializations shall include Semester wise Theory & Practical as given in Table – 2 to 11. The number of hours to be devoted to each theory and practical course in any semester shall not be less than that shown in Table – 2 to 11.

Table – 2: Course of study for M. Pharm. (Pharmaceutics)

| Course Code | Course | Credit Hours | Credit Points | Hrs./week | Marks |
|-------------|--|--------------|---------------|-----------|-------|
| Semester I | | | | | |
| MPH101T | Modern Pharmaceutical Analytical Techniques | 4 | 4 | 4 | 100 |
| MPH102T | Drug Delivery System | 4 | 4 | 4 | 100 |
| MPH103T | Modern Pharmaceutics | 4 | 4 | 4 | 100 |
| MPH104T | Regulatory Affair | 4 | 4 | 4 | 100 |
| MPH105P | Pharmaceutics Practical I | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MPH201T | Molecular Pharmaceutics (Nano Tech and Targeted DDS) | 4 | 4 | 4 | 100 |
| MPH202T | Advanced Biopharmaceutics & Pharmacokinetics | 4 | 4 | 4 | 100 |
| MPH203T | Computer Aided Drug Delivery System | 4 | 4 | 4 | 100 |
| MPH204T | Cosmetic and Cosmeceuticals | 4 | 4 | 4 | 100 |
| MPH205P | Pharmaceutics Practical II | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |

Table – 3: Course of study for M. Pharm. (Industrial Pharmacy)

| Course Code | Course | Credit Hours | Credit Points | Hrs./week | Marks |
|--------------------|--|--------------|---------------|-----------|-------|
| Semester I | | | | | |
| MIP101T | Modern Pharmaceutical Analytical Techniques | 4 | 4 | 4 | 100 |
| MIP102T | Pharmaceutical Formulation Development | 4 | 4 | 4 | 100 |
| MIP103T | Novel drug delivery systems | 4 | 4 | 4 | 100 |
| MIP104T | Intellectual Property Rights | 4 | 4 | 4 | 100 |
| MIP105P | Industrial Pharmacy Practical I | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MIP201T | Advanced Biopharmaceutics and Pharmacokinetics | 4 | 4 | 4 | 100 |
| MIP202T | Scale up and Technology Transfer | 4 | 4 | 4 | 100 |
| MIP203T | Pharmaceutical Production Technology | 4 | 4 | 4 | 100 |
| MIP204T | Entrepreneurship Management | 4 | 4 | 4 | 100 |
| MIP205P | Industrial Pharmacy Practical II | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |

Table - 4: Course of study for M. Pharm. (Pharmaceutical Chemistry)

| Course Code | Course | Credit Hours | Credit Points | Hrs./week | Marks |
|-------------|---|--------------|---------------|-----------|-------|
| Semester I | | | | | |
| MPC101T | Modern Pharmaceutical Analytical Techniques | 4 | 4 | 4 | 100 |
| MPC1012T | Advanced Organic Chemistry -I | 4 | 4 | 4 | 100 |
| MPC103T | Advanced Medicinal chemistry | 4 | 4 | 4 | 100 |
| MPC104T | Chemistry of Natural Products | 4 | 4 | 4 | 100 |
| MPC105P | Pharmaceutical Chemistry Practical I | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MPC201T | Advanced Spectral Analysis | 4 | 4 | 4 | 100 |
| MPC202T | Advanced Organic Chemistry -II | 4 | 4 | 4 | 100 |
| MPC203T | Computer Aided Drug Design | 4 | 4 | 4 | 100 |
| MPC204T | Pharmaceutical Process Chemistry | 4 | 4 | 4 | 100 |
| MPC205P | Pharmaceutical Chemistry Practical II | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |

Table - 5: Course of study for M. Pharm. (Pharmaceutical Analysis)

| Course Code | Course | Credit Hours | Credit Points | Hrs./wk | Marks |
|-------------|---|--------------|---------------|---------|-------|
| Semester I | | | | | |
| MPA101T | Modern Pharmaceutical Analytical Techniques | 4 | 4 | 4 | 100 |
| MPA102T | Advanced Pharmaceutical Analysis | 4 | 4 | 4 | 100 |
| MPA103T | Pharmaceutical Validation | 4 | 4 | 4 | 100 |
| MPA104T | Food Analysis | 4 | 4 | 4 | 100 |
| MPA105P | Pharmaceutical Analysis Practical I | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MPA201T | Advanced Instrumental Analysis | 4 | 4 | 4 | 100 |
| MPA202T | Modern Bio-Analytical Techniques | 4 | 4 | 4 | 100 |
| MPA203T | Quality Control and Quality Assurance | 4 | 4 | 4 | 100 |
| MPA204T | Herbal and Cosmetic Analysis | 4 | 4 | 4 | 100 |
| MPA205P | Pharmaceutical Analysis Practical II | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |

Table - 6: Course of study for M. Pharm. (Pharmaceutical Quality Assurance)

| Course Code | Course | Credit Hours | Credit Points | Hrs./week | Marks |
|--------------------|---|--------------|---------------|-----------|-------|
| Semester I | | | | | |
| MQA101T | Modern Pharmaceutical Analytical Techniques | 4 | 4 | 4 | 100 |
| MQA102T | Quality Management System | 4 | 4 | 4 | 100 |
| MQA103T | Quality Control and Quality Assurance | 4 | 4 | 4 | 100 |
| MQA104T | Product Development and Technology Transfer | 4 | 4 | 4 | 100 |
| MQA105P | Pharmaceutical Quality Assurance Practical I | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MQA201T | Hazards and Safety Management | 4 | 4 | 4 | 100 |
| MQA202T | Pharmaceutical Validation | 4 | 4 | 4 | 100 |
| MQA203T | Audits and Regulatory Compliance | 4 | 4 | 4 | 100 |
| MQA204T | Pharmaceutical Manufacturing Technology | 4 | 4 | 4 | 100 |
| MQA205P | Pharmaceutical Quality Assurance Practical II | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |

Table – 7: Course of study for M. Pharm. (Regulatory Affairs)

| Course Code | Course | Credit Hours | Credit Points | Hrs./wk | Marks |
|-------------|--|--------------|---------------|---------|-------|
| Semester I | | | | | |
| MRA 101T | Good Regulatory Practices | 4 | 4 | 4 | 100 |
| MRA 102T | Documentation and Regulatory Writing | 4 | 4 | 4 | 100 |
| MRA 103T | Clinical Research Regulations | 4 | 4 | 4 | 100 |
| MRA 104T | Regulations and Legislation for Drugs & Cosmetics, Medical Devices, Biologicals & Herbals, and Food & Nutraceuticals In India and Intellectual Property Rights | 4 | 4 | 4 | 100 |
| MRA 105P | Regulatory Affairs Practical I | 12 | 6 | 12 | 150 |
| | Seminar/Assignment | 7 | 4 | 7 | 100 |
| | Total | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MRA 201T | Regulatory Aspects of Drugs & Cosmetics | 4 | 4 | 4 | 100 |
| MRA 202T | Regulatory Aspects of Herbal & Biologicals | 4 | 4 | 4 | 100 |
| MRA 203T | Regulatory Aspects of Medical Devices | 4 | 4 | 4 | 100 |
| MRA 204T | Regulatory Aspects of Food & Nutraceuticals | 4 | 4 | 4 | 100 |
| MRA 205P | Regulatory Affairs Practical II | 12 | 6 | 12 | 150 |
| | Seminar/Assignment | 7 | 4 | 7 | 100 |
| | Total | 35 | 26 | 35 | 650 |

Table – 8: Course of study for M. Pharm. (Pharmaceutical Biotechnology)

| Course Code | Course | Credit Hours | Credit Points | Hrs./week | Marks |
|--------------------|---|--------------|---------------|-----------|-------|
| Semester I | | | | | |
| MPB 101T | Modern Pharmaceutical Analytical Techniques | 4 | 4 | 4 | 100 |
| MPB 102T | Microbial And Cellular Biology | 4 | 4 | 4 | 100 |
| MPB 103T | Bioprocess Engineering and Technology | 4 | 4 | 4 | 100 |
| MPB 104T | Advanced Pharmaceutical Biotechnology | 4 | 4 | 4 | 100 |
| MPB 105P | Pharmaceutical Biotechnology Practical I | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MPB 201T | Proteins and protein Formulation | 4 | 4 | 4 | 100 |
| MPB 202T | Immunotechnology | 4 | 4 | 4 | 100 |
| MPB 203T | Bioinformatics and Computer Technology | 4 | 4 | 4 | 100 |
| MPB 204T | Biological Evaluation of Drug Therapy | 4 | 4 | 4 | 100 |
| MPB 205P | Pharmaceutical Biotechnology Practical II | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |

Table - 9: Course of study for M. Pharm. (Pharmacy Practice)

| Course Code | Course | Credit Hours | Credit Points | Hrs./wk | Marks |
|-------------|---|--------------|---------------|---------|-------|
| Semester I | | | | | |
| MPP 101T | Clinical Pharmacy Practice | 4 | 4 | 4 | 100 |
| MPP 102T | Pharmacotherapeutics-I | 4 | 4 | 4 | 100 |
| MPP 103T | Hospital & Community Pharmacy | 4 | 4 | 4 | 100 |
| MPP 104T | Clinical Research | 4 | 4 | 4 | 100 |
| MPP 105P | Pharmacy Practice Practical I | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MPP 201T | Principles of Quality Use of Medicines | 4 | 4 | 4 | 100 |
| MPP 102T | Pharmacotherapeutics II | 4 | 4 | 4 | 100 |
| MPP 203T | Clinical Pharmacokinetics and Therapeutic Drug Monitoring | 4 | 4 | 4 | 100 |
| MPP 204T | Pharmacoepidemiology & Pharmacoeconomics | 4 | 4 | 4 | 100 |
| MPP 205P | Pharmacy Practice Practical II | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |

Table - 10: Course of study for (Pharmacology)

| Course Code | Course | Credit Hours | Credit Points | Hrs./wk | Marks |
|--------------------|--|--------------|---------------|---------|-------|
| Semester I | | | | | |
| MPL 101T | Modern Pharmaceutical Analytical Techniques | 4 | 4 | 4 | 100 |
| MPL 102T | Advanced Pharmacology-I | 4 | 4 | 4 | 100 |
| MPL 103T | Pharmacological and Toxicological Screening Methods-I | 4 | 4 | 4 | 100 |
| MPL 104T | Cellular and Molecular Pharmacology | 4 | 4 | 4 | 100 |
| MPL 105P | Pharmacology Practical I | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MPL 201T | Advanced Pharmacology II | 4 | 4 | 4 | 100 |
| MPL 202T | Pharmacological and Toxicological Screening Methods-II | 4 | 4 | 4 | 100 |
| MPL 203T | Principles of Drug Discovery | 4 | 4 | 4 | 100 |
| MPL 204T | Experimental Pharmacology practical- II | 4 | 4 | 4 | 100 |
| MPL 205P | Pharmacology Practical II | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |

Table - 11: Course of study for M. Pharm. (Pharmacognosy)

| Course Code | Course | Credit Hours | Credit Points | Hrs./wk | Marks |
|-------------|---|--------------|---------------|---------|-------|
| Semester I | | | | | |
| MPG101T | Modern Pharmaceutical Analytical Techniques | 4 | 4 | 4 | 100 |
| MPG102T | Advanced Pharmacognosy-I | 4 | 4 | 4 | 100 |
| MPG103T | Phytochemistry | 4 | 4 | 4 | 100 |
| MPG104T | Industrial Pharmacognostical Technology | 4 | 4 | 4 | 100 |
| MPG105P | Pharmacognosy Practical I | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |
| Semester II | | | | | |
| MPG201T | Medicinal Plant biotechnology | 4 | 4 | 4 | 100 |
| MPG102T | Advanced Pharmacognosy-II | 4 | 4 | 4 | 100 |
| MPG203T | Indian system of medicine | 4 | 4 | 4 | 100 |
| MPG204T | Herbal cosmetics | 4 | 4 | 4 | 100 |
| MPG205P | Pharmacognosy Practical II | 12 | 6 | 12 | 150 |
| - | Seminar/Assignment | 7 | 4 | 7 | 100 |
| Total | | 35 | 26 | 35 | 650 |

Table – 12: Course of study for M. Pharm. III Semester
(Common for All Specializations)

| Course Code | Course | Credit Hours | Credit Points |
|-------------|--|--------------|---------------|
| MRM 301T | Research Methodology and Biostatistics* | 4 | 4 |
| - | Journal club | 1 | 1 |
| - | Discussion / Presentation (Proposal Presentation) | 2 | 2 |
| - | Research Work | 28 | 14 |
| Total | | 35 | 21 |

* Non University Exam

Table – 13: Course of study for M. Pharm. IV Semester
(Common for All Specializations)

| Course Code | Course | Credit Hours | Credit Points |
|-------------|-------------------------------|--------------|---------------|
| - | Journal Club | 1 | 1 |
| - | Research Work | 31 | 16 |
| - | Discussion/Final Presentation | 3 | 3 |
| Total | | 35 | 20 |

Table – 14: Semester wise credits distribution

| Semester | Credit Points |
|--|----------------------------|
| I | 26 |
| II | 26 |
| III | 21 |
| IV | 20 |
| Co-curricular Activities (Attending Conference, Scientific Presentations and Other Scholarly Activities) | Minimum=02 Maximum=07* |
| Total Credit Points | Minimum=95 Maximum=100* |

*Credit Points for Co-curricular Activities

Table – 15: Guidelines for Awarding Credit Points for Co-curricular Activities

| Name of the Activity | Maximum Credit Points Eligible / Activity |
|--|---|
| Participation in National Level Seminar/Conference/Workshop/Symposium/ Training Programs (related to the specialization of the student) | 01 |
| Participation in international Level Seminar/Conference/Workshop/Symposium/ Training Programs (related to the specialization of the student) | 02 |
| Academic Award/Research Award from State Level/National Agencies | 01 |
| Academic Award/Research Award from International Agencies | 02 |
| Research / Review Publication in National Journals (Indexed in Scopus / Web of Science) | 01 |
| Research / Review Publication in International Journals (Indexed in Scopus / Web of Science) | 02 |

Note: International Conference: Held Outside India

International Journal: The Editorial Board Outside India

*The credit points assigned for extracurricular and or co-curricular activities shall be given by the Principals of the colleges and the same shall be submitted to the University. The criteria to acquire this credit point shall be defined by the colleges from time to time.

10. Program Committee

1. The M. Pharm. programme shall have a Programme Committee constituted by the Head of the institution in consultation with all the Heads of the departments.

2. The composition of the Programme Committee shall be as follows:
A teacher at the cadre of Professor shall be the Chairperson; One Teacher from each M.Pharm specialization and four student representatives (two from each academic year), nominated by the Head of the institution.

3. Duties of the Programme Committee:
 - i. Periodically reviewing the progress of the classes.
 - ii. Discussing the problems concerning curriculum, syllabus and the conduct of classes.
 - iii. Discussing with the course teachers on the nature and scope of assessment for the course and the same shall be announced to the students at the beginning of respective semesters.

- iv. Communicating its recommendation to the Head of the institution on academic matters.
- v. The Programme Committee shall meet at least twice in a semester preferably at the end of each sessionalexam and before the end semester exam.

11. Examinations/Assessments

The schemes for internal assessment and end semester examinations are given in Table - 16.

11.1. End semester examinations

The End Semester Examinations for each theory and practical coursethrough semesters I to IVshall beconducted by the respective university except for the subject with asterix symbol (*) in table I and II for which examinations shall be conducted by the subject experts at college level and the marks/grades shall be submitted to the university.

Tables - 1616 : Schemes for internal assessments and end semester
(Pharmaceutics- MPH)

| Course Code | Course | Internal Assessment | | | End Semester Exams | | | Total Marks |
|--------------------|---|-------------------------|--------------------|----------|--------------------|-------|----------|-------------|
| | | Continu- ous Mode | Sessional Exams | | Total | Marks | Duration | |
| | | | Marks | Duration | | | | |
| SEMESTER I | | | | | | | | |
| MPH 101T | Modern Pharmaceutical Analytical Techniques | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPH 102T | Drug Delivery System | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPH 103T | Modern Pharmaceutics | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPH 104T | Regulatory Affair | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPH 105P | Pharmaceutics Practical I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MPH 201T | Molecular Pharmaceutics(Nano Tech and Targeted DDS) | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPH 202T | Advanced Biopharmaceutics & Pharmacokinetics | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPH 203T | Computer Aided Drug Delivery System | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPH | Cosmetic | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |

| | | | | | | | | |
|-------------|-------------------------------|----|----|-------|----|-----|-------|-----|
| 204T | and Cosmeceutic als | | | | | | | |
| MPH 205P | Pharmaceuti cs Practical I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

Tables - 1717 : Schemes for internal assessments and end semester
(Industrial Pharmacy- MIP)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|--------------------|--|---------------------|-----------------|----------|-------|--------------------|----------|-------------|
| | | Continuous Mode | Sessional Exams | | Total | Marks | Duration | |
| | | | Marks | Duration | | | | |
| SEMESTER I | | | | | | | | |
| MIP101T | Modern Pharmaceutical Analytical Techniques | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MIP102T | Pharmaceutical Formulation Development | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MIP103T | Novel drug delivery systems | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MIP104T | Intellectual Property Rights | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MIP105P | Industrial Pharmacy Practical I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MIP201T | Advanced Biopharmaceutics and Pharmacokinetics | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MIP202T | Scale up and Technology Transfer | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MIP203T | Pharmaceutical Production Technology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MIP204T | Entrepreneurs hip Management | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |

| | | | | | | | | |
|---------|----------------------------------|----|----|-------|----|-----|-------|-----|
| MIP205P | Industrial Pharmacy Practical II | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

(Pharmaceutical Chemistry-MPC)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|--------------------|---|------------------------------|-----------------|--------------------|-------|--------------------|--------------------|-------------|
| | | Continu- ous Mod- e | Sessional Exams | | Total | Mar- ks | Du- ra- tion | |
| | | | Mar- ks | Du- ra- tion | | | | |
| SEMESTER I | | | | | | | | |
| MPC101T | Modern Pharmaceutical Analytical Techniques | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPC102T | Advanced Organic Chemistry -I | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPC103T | Advanced Medicinal chemistry | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPC104T | Chemistry of Natural Products | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPC105P | Pharmaceutical Chemistry Practical I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MPC201T | Advanced Spectral Analysis | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPC202T | Advanced Organic Chemistry -II | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPC203T | Computer Aided Drug Design | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPC204T | Pharmaceutical Process Chemistry | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPC205P | Pharmaceutical | 20 | 30 | 6 Hrs | 50 | 100 | 6 | 150 |

| | | | | | | | | |
|-------|------------------------------|---|---|---|---|---|-----|-----|
| | al Chemistry Practical II | | | | | | Hrs | |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

Tables – 19: Schemes for internal assessments and end semester examinations
(Pharmaceutical Analysis-MPA)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|--------------------|--|-------------------------|-----------------|---------------|------------|--------------------|---------------|-------------|
| | | Continu- ous Mode | Sessional Exams | | Tot- al | Mark- s | Dura- tion | |
| | | | Mark s | Durati- on | | | | |
| SEMESTER I | | | | | | | | |
| MPA101T | Modern Pharmaceuti- cal Analysis | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPA102T | Advanced Pharmaceuti- cal Analysis | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPA103T | Pharmaceuti- cal Validation | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPA104T | Food Analysis | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPA105P | Pharmaceuti- cal Analysis-I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MPA201T | Advanced Instrumental Analysis | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPA202T | Modern Bio- Analytical Techniques | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPA203T | Quality Control and Quality | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |

| | | | | | | | | |
|---------|------------------------------------|----|----|-------|----|-----|-------|-----|
| | Assurance | | | | | | | |
| MPA204T | Herbal and Cosmetic analysis | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPA205P | Pharmaceuti cal Analysis- II | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

Tables – 20: Schemes for internal assessments and end semester examinations
(Pharmaceutical Quality Assurance-MQA)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|--------------------|---|---------------------|-----------------|----------|-------|--------------------|----------|-------------|
| | | Continuous Mode | Sessional Exams | | Total | Marks | Duration | |
| | | | Marks | Duration | | | | |
| SEMESTER I | | | | | | | | |
| MQA101T | Modern Pharmaceutical Analytical Techniques | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MQA102T | Quality Management System | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MQA103T | Quality Control and Quality Assurance | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MQA104T | Product Development and Technology Transfer | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MQA105P | Pharmaceutical Quality Assurance Practical I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MQA201T | Hazards and Safety Management | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MQA202T | Pharmaceutical Validation | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MQA203T | Audits and Regulatory Compliance | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MQA204T | Pharmaceutical Manufacturing Technology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MQA205P | Pharmaceutical Quality Assurance Practical II | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

Tables – 21: Schemes for internal assessments and end semester examinations
(Pharmaceutical Regulatory Affairs-MRA)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|--------------------|--|----------------------------|-----------------|--------------|-----------|--------------------|--------------|-------------|
| | | Continuo us Mod e | Sessional Exams | | Tot al | Mar ks | Dura tion | |
| | | | Mar ks | Durati on | | | | |
| SEMESTER I | | | | | | | | |
| MRA10 1T | Good Pharmaceutical Practices | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MRA10 2T | Documentation and Regulatory Writing | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MRA10 3T | Clinical Research Regulations | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MRA10 4T | Regulations and Legislation for Drugs & Cosmetics, Medical Devices, Biologicals & Herbals, and Food & Nutraceuticals In India and Intellectual Property Rights | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MRA10 5T | Pharmaceutical Regulatory Affairs Practical I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MRA20 1T | Regulatory Aspects of Drugs & Cosmetics | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |

| | | | | | | | | |
|-------------|---|----|----|-------|----|-----|-------|-----|
| MRA20 2T | Regulatory Aspects of Herbal & Biologicals | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MRA20 3T | Regulatory Aspects of Medical Devices | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MRA20 4T | Regulatory Aspects of Food & Nutraceuticals | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MRA20 5P | Pharmaceutical Regulatory Affairs Practical II | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

Tables – 22: Schemes for internal assessments and end semester examinations
(Pharmaceutical Biotechnology-MPB)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|--------------------|---|---------------------|-----------------|----------|-------|--------------------|----------|-------------|
| | | Continuous Mode | Sessional Exams | | Total | Marks | Duration | |
| | | | Marks | Duration | | | | |
| SEMESTER I | | | | | | | | |
| MPB10 1T | Modern Pharmaceutical Analytical Techniques | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPB10 2T | Microbial And Cellular Biology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPB10 3T | Bioprocess Engineering and Technology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPB10 4T | Advanced Pharmaceutical Biotechnology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPB10 5P | Pharmaceutical Biotechnology Practical I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MPB20 1T | Proteins and protein Formulation | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPB20 2T | Immunotechnology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPB20 3T | Bioinformatics and Computer Technology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPB20 4T | Biological Evaluation of Drug Therapy | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPB20 5P | Pharmaceutical Biotechnology Practical II | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

Tables – 23: Schemes for internal assessments and end semester examinations
(Pharmacy Practice-MPP)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|--------------------|---|---------------------|-----------------|----------|-------|--------------------|----------|-------------|
| | | Continuous Mode | Sessional Exams | | Total | Marks | Duration | |
| | | | Marks | Duration | | | | |
| SEMESTER I | | | | | | | | |
| MPP10 1T | Clinical Pharmacy Practice | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPP10 2T | Pharmacotherapeutic s-I | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPP10 3T | Hospital & Community Pharmacy | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPP10 4T | Clinical Research | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPP10 5P | Pharmacy Practice Practical I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MPP20 1T | Principles of Quality Use of Medicines | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPP10 2T | Pharmacotherapeutic s II | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPP20 3T | Clinical Pharmacokinetics and Therapeutic Drug Monitoring | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPP20 4T | Pharmacoepidemiology & Pharmacoeconomics | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPP20 5P | Pharmacy Practice Practical II | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

Tables – 24: Schemes for internal assessments and end semester examinations
(Pharmacology-MPL)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|--------------------|--|---------------------|-----------------|----------|-------|--------------------|----------|-------------|
| | | Continuous Mode | Sessional Exams | | Total | Marks | Duration | |
| | | | Marks | Duration | | | | |
| SEMESTER I | | | | | | | | |
| MPL10 1T | Modern Pharmaceutical Analytical Techniques | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPL10 2T | Advanced Pharmacology-I | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPL10 3T | Pharmacological and Toxicological Screening Methods-I | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPL10 4T | Cellular and Molecular Pharmacology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPL10 5P | Experimental Pharmacology - I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MPL20 1T | Advanced Pharmacology II | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPL10 2T | Pharmacological and Toxicological Screening Methods-II | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPL20 3T | Principles of Drug Discovery | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPL20 4T | Clinical research and pharmacovigilance | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPL20 5P | Experimental Pharmacology - II | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

Tables – 25: Schemes for internal assessments and end semester examinations
(Pharmacognosy-MPG)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|--------------------|---|---------------------|-----------------|----------|-------|--------------------|----------|-------------|
| | | Continuous Mode | Sessional Exams | | Total | Marks | Duration | |
| | | | Marks | Duration | | | | |
| SEMESTER I | | | | | | | | |
| MPG10 1T | Modern Pharmaceutical Analytical Techniques | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPG10 2T | Advanced Pharmacognosy-I | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPG10 3T | Phytochemistry | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPG10 4T | Industrial Pharmacognostical Technology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPG10 5P | Pharmacognosy Practical I | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |
| SEMESTER II | | | | | | | | |
| MPG20 1T | Medicinal Plant biotechnology | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPG10 2T | Advanced Pharmacognosy-II | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPG20 3T | Indian system of medicine | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPG20 4T | Herbal cosmetics | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| MPG20 5P | Pharmacognosy Practical II | 20 | 30 | 6 Hrs | 50 | 100 | 6 Hrs | 150 |
| - | Seminar /Assignment | - | - | - | - | - | - | 100 |
| Total | | | | | | | | 650 |

Tables – 26: Schemes for internal assessments and end semester examinations
(Semester III& IV)

| Course Code | Course | Internal Assessment | | | | End Semester Exams | | Total Marks |
|---------------------|---|---------------------|-----------------|----------|-------|--------------------|----------|-------------|
| | | Continuous Mode | Sessional Exams | | Total | Marks | Duration | |
| | | | Marks | Duration | | | | |
| SEMESTER III | | | | | | | | |
| MRM301T | Research Methodology and Biostatistics* | 10 | 15 | 1 Hr | 25 | 75 | 3 Hrs | 100 |
| - | Journal club | - | - | - | 25 | - | - | 25 |
| - | Discussion / Presentation (Proposal Presentation) | - | - | - | 50 | - | - | 50 |
| - | Research work* | - | - | - | - | 350 | 1 Hr | 350 |
| Total | | | | | | | | 525 |
| SEMESTER IV | | | | | | | | |
| - | Journal club | - | - | - | 25 | - | - | 25 |
| - | Discussion / Presentation (Proposal Presentation) | - | - | - | 75 | - | - | 75 |
| - | Research work and Colloquium | - | - | - | - | 400 | 1 Hr | 400 |
| Total | | | | | | | | 500 |

*Non University Examination

11.2. Internal assessment: Continuous mode

The marks allocated for Continuous mode of Internal Assessment shall be awarded as per the scheme given below.

Table – 27: Scheme for awarding internal assessment: Continuous mode

| Theory | |
|---|---------------|
| Criteria | Maximum Marks |
| Attendance (Refer Table – 28) | 8 |
| Student – Teacher interaction | 2 |
| Total | 10 |
| Practical | |
| Attendance (Refer Table – 28) | 10 |
| Based on Practical Records, Regular viva voce, etc. | 10 |
| Total | 20 |

Table – 28: Guidelines for the allotment of marks for attendance

| Percentage of Attendance | Theory | Practical |
|--------------------------|--------|-----------|
| 95 – 100 | 8 | 10 |
| 90 – 94 | 6 | 7.5 |
| 85 – 89 | 4 | 5 |
| 80 – 84 | 2 | 2.5 |
| Less than 80 | 0 | 0 |

11.2.1. Sessional Exams

Two sessional exams shall be conducted for each theory / practical course as per the schedule fixed by the college(s). The scheme of question paper for theory and practical sessional examinations is given in the table. The average marks of two sessional exams shall be computed for internal assessment as per the requirements given in tables.

12. Promotion and award of grades

A student shall be declared PASS and eligible for getting grade in a course of M.Pharm. programme if he/she secures at least 50% marks in that particular course including internal assessment.

13. Carry forward of marks

In case a student fails to secure the minimum 50% in any Theory or Practical course as specified in 12, then he/she shall reappear for the end semester examination of that course. However his/her marks of the Internal Assessment shall be carried over and he/she shall be entitled for grade obtained by him/her on passing.

14. Improvement of internal assessment

A student shall have the opportunity to improve his/her performance only once in the sessional exam component of the internal assessment. The re-conduct of the sessional exam shall be completed before the commencement of next end semester theory examinations.

15. Reexamination of end semester examinations

Reexamination of end semester examination shall be conducted as per the schedule given in table 29. The exact dates of examinations shall be notified from time to time.

Table – 29: Tentative schedule of end semester examinations

| Semester | For Regular Candidates | For Failed Candidates |
|-----------|------------------------|-----------------------|
| I and III | November / December | May / June |
| II and IV | May / June | November / December |

16. Allowed to keep terms (ATKT):

No student shall be admitted to any examination unless he/she fulfills the norms given in 6. ATKT rules are applicable as follows:

A student shall be eligible to carry forward all the courses of I and II semesters till the III semester examinations. However, he/she shall not be eligible to attend the courses of IV semester until all the courses of I, II and III semesters are successfully completed.

A student shall be eligible to get his/her CGPA upon successful completion of the courses of I to IV semesters within the stipulated time period as per the norms.

Note: Grade AB should be considered as failed and treated as one head for deciding ATKT. Such rules are also applicable for those students who fail to register for examination(s) of any course in any semester.

17. Grading of performances

17.1. Letter grades and grade points allocations:

Based on the performances, each student shall be awarded a final letter grade at the end of the semester for each course. The letter grades and their corresponding grade points are given in Table – 30.

Table – 30: Letter grades and grade points equivalent to Percentage of marks and performances

| Percentage of Marks Obtained | Letter Grade | Grade Point | Performance |
|------------------------------|--------------|-------------|-------------|
| 90.00 – 100 | O | 10 | Outstanding |
| 80.00 – 89.99 | A | 9 | Excellent |
| 70.00 – 79.99 | B | 8 | Good |
| 60.00 – 69.99 | C | 7 | Fair |
| 50.00 – 59.99 | D | 6 | Average |
| Less than 50 | F | 0 | Fail |
| Absent | AB | 0 | Fail |

A learner who remains absent for any end semester examination shall be assigned a letter grade of AB and a corresponding grade point of zero. He/she should reappear for the said evaluation/examination in due course.

18. The Semester grade point average (SGPA)

The performance of a student in a semester is indicated by a number called 'Semester Grade Point Average' (SGPA). The SGPA is the weighted average of the grade points obtained in all the courses by the student during the semester. For example, if a student takes five courses (Theory/Practical) in a semester with credits C₁, C₂, C₃ and C₄ and the student's grade points in these courses are G₁, G₂, G₃ and G₄, respectively, and then students' SGPA is equal to:

$$\text{SGPA} = \frac{C_1G_1 + C_2G_2 + C_3G_3 + C_4G_4}{C_1 + C_2 + C_3 + C_4}$$

The SGPA is calculated to two decimal points. It should be noted that, the SGPA for any semester shall take into consideration the F and ABS grade awarded in that semester. For example if a learner has a F or ABS grade in course 4, the SGPA shall then be computed as:

$$\text{SGPA} = \frac{C_1G_1 + C_2G_2 + C_3G_3 + C_4^* \text{ZERO}}{C_1 + C_2 + C_3 + C_4}$$

19. Cumulative Grade Point Average (CGPA)

The CGPA is calculated with the SGPA of all the IV semesters to two decimal points and is indicated in final grade report card/final transcript showing the grades of all IV semesters and their courses. The CGPA shall reflect the failed status in case of F grade(s), till the course(s) is/are passed. When the course(s) is/are passed by obtaining a pass grade on subsequent examination(s) the CGPA

shall only reflect the new grade and not the fail grades earned earlier. The CGPA is calculated as:

$$\text{CGPA} = \frac{C_1S_1 + C_2S_2 + C_3S_3 + C_4S_4}{C_1 + C_2 + C_3 + C_4}$$

where C_1, C_2, C_3, \dots is the total number of credits for semester I, II, III, ... and S_1, S_2, S_3, \dots is the SGPA of semester I, II, III,

20. Declaration of class

The class shall be awarded on the basis of CGPA as follows:

| | |
|------------------------------|--------------------------|
| First Class with Distinction | = CGPA of 7.50 and above |
| First Class | = CGPA of 6.00 to 7.49 |
| Second Class | = CGPA of 5.00 to 5.99 |

21. Project work

All the students shall undertake a project under the supervision of a teacher in Semester III to IV and submit a report. 4 copies of the project report shall be submitted (typed & bound copy not less than 75 pages).

The internal and external examiner appointed by the University shall evaluate the project at the time of the Practical examinations of other semester(s). The projects shall be evaluated as per the criteria given below.

Evaluation of Dissertation Book:

| | |
|-------------------------------|-----------|
| Objective(s) of the work done | 50 Marks |
| Methodology adopted | 150 Marks |
| Results and Discussions | 250 Marks |
| Conclusions and Outcomes | 50 Marks |
| Total | 500 Marks |

Evaluation of Presentation:

| | |
|----------------------------|-----------|
| Presentation of work | 100 Marks |
| Communication skills | 50 Marks |
| Question and answer skills | 100 Marks |
| Total | 250 Marks |

22. Award of Ranks

Ranks and Medals shall be awarded on the basis of final CGPA. However, candidates who fail in one or more courses during the M.Pharm program shall not be eligible for award of ranks. Moreover, the candidates should have completed the M. Pharm program in minimum prescribed number of years, (two years) for the award of Ranks.

23. Award of degree

Candidates who fulfill the requirements mentioned above shall be eligible for award of degree during the ensuing convocation.

24. Duration for completion of the program of study

The duration for the completion of the program shall be fixed as double the actual duration of the program and the students have to pass within the said period, otherwise they have to get fresh Registration.

25. Revaluation I Retotaling of answer papers

There is no provision for revaluation of the answer papers in any examination. However, the candidates can apply for retotaling by paying prescribed fee.

26. Re-admission after break of study

Candidate who seeks re-admission to the program after break of study has to get the approval from the university by paying a condonation fee.