Regulations for Choice Based Credit System M.Sc. under the Framework of Honours School System (Semester System) at Panjab University Campus

Implemented from the Academic Session 2019-20
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1. Master of Science Course under the Framework of Honours School System shall be two academic years comprising four semesters. Panjab University will award the degree of Master of Science under the Framework of Honours School System [M.Sc. (Hons. School)] in the subjects of
   (i) Anthropology
   (ii) Botany
   (iii) Biochemistry
   (iv) Biophysics
   (v) Biotechnology
   (vi) Chemistry
   (vii) Computer Science
   (viii) Geology
   (ix) Mathematics
   (x) Microbiology
   (xi) Physics
   (xii) Physics (Specialization in Electronics)
   (xiii) Zoology
   and any other subject as decided by the Syndicate from time to time.

2. Board of Control (BOC)
   A Board of Control shall be constituted in January every year as per University Regulations mentioned in Chapter VII (B), P.U. Calendar Volume I.
   (i) Subject to the approval of the Dean of University Instruction, the Board of Control shall be the authority to admit students and to remove students from the M.Sc. Course in accordance with the rules laid down by the Academic Council.
   (ii) It shall make recommendations to the Syndicate in all matters concerning the Honours School course including the syllabi and the appointment of examiners.
   (iii) A Postgraduate Academic Programme Monitoring and Execution Committee (PGAPMEC) shall be appointed by the Board of Control for monitoring and execution of the academic programmes as per the approved regulations. BOC will also take decisions on various recommendations made by PGAPMEC from time to time.
3. **M.Sc. UNDER THE FRAMEWORK OF HONOURS SCHOOL SYSTEM - Syllabi and courses of reading**

Master of Science Course under the Framework of Honours School System shall be two academic years comprising four semesters.

**3.1 The syllabi and courses of reading for the M.Sc. shall be as approved by the Senate from time to time.**

(i) The medium of instruction and examination shall be English.

(ii) The Board of Control shall make recommendations to the Syndicate in all matters concerning the Honours School course including the syllabi and the appointment of examiners.

(iii) Recommendations concerning syllabi shall be routed through the Faculty of Science and the Academic Council.

**3.2 The M.Sc. (Honours School) programme of study shall consist of 80 credits. Further details of teaching hours, marks and credits allocated to each course (Theory and Practicals) are given in the respective Syllabi. The structure of the Semester of M.Sc. Course w.e.f. admission of 2019 shall be as under:-**

A. **Core Courses**: A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

B. **Discipline Specific Elective (DSE) Courses**: Elective courses offered under the main discipline/subject of study are referred to as Discipline Specific Elective.

C. **Generic Elective (GE) Courses**: Generic Elective courses offered under the unrelated discipline/subject to seek exposure beyond discipline of choice is referred to as generic Elective.

D. **Ability Enhancement Courses (AEC)**: The Ability Enhancement Courses (AEC) are of two kinds: Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC).

In the Semesters I and II, all the Courses will preferably be Core Courses. In the Semesters III and IV, there will be increasing fraction of optional Discipline Specific Elective (DSE) Courses. Ability Enhancement Courses (AEC) courses may also be offered.

**3.3 Board of Control of each Department will decide**

(i) the Discipline Specific Elective Courses (subjects) to be offered to the M.Sc. students in the Department.
(ii) the Generic Elective Courses (subjects) to be offered to the M.Sc. students of by other departments.
(iii) The Ability Enhancement Courses (AEC), if any, to be offered to the M.Sc. students.

3.4 The candidate has to abide by the choice of DSE, GE and AEC courses offered by the department as per the syllabi recommended by the Board of Control and duly approved by the Faculty of Science.

4. ADMISSION TO M.Sc. FIRST YEAR UNDER THE FRAMEWORK OF HONOURS SCHOOL SYSTEM

4.1. A person who qualifies one of the following criteria shall be eligible to join M.Sc. in a subject under the framework of Honours School Semester System:

A. Qualified examination for B.Sc. (Hons.) under the framework of Honours School System being run at Panjab University Campus with minimum of 90% of the total credits allocated for the degree (rounded to lower even number of credits). The major subject of B.Sc. (Honours) must be the same for which admission is sought in M.Sc.

OR

(i) Passed B.Sc. (Hons.) or B.Sc. examination with 50% marks from the Panjab University or under 10+2+3 system of education of recognized University/Board/Council or any other examination recognized by the Panjab University as equivalent. For seeking admission to M.Sc. in a subject, the student must have studied the pre-requisite subject(s) at undergraduate level as prescribed in the PU Handbook of Information.

OR

Passed B.Sc. (Hons.) with 50% marks and earning 24 credits in a Generic Elective (GE) Course (subject) in the full B. Sc (Hons.) Course shall also be deemed sufficient to satisfy a requirement for admission to the M.Sc. course in that GE subject.

(ii) Passed B.Sc. (Hons.)/B.A.(Hons.) or B.Sc./B.A. examination of the Panjab University or any other examination recognized by the Panjab University as equivalent thereto, with 50% marks for admission to M.Sc. (Honours School) in Anthropology and Mathematics.

(iii) Passed B.Tech./B.E. (Electronics/Electrical/Mechanical) with 50% marks of Panjab University or any other examination recognized as equivalent thereto, shall also
be eligible for M.Sc. Physics (Specialization in Electronics) under the framework of Honours School System.

(iv) Passed B.C.A./B.Tech./B.E. (Computer Science/Engineering) with 50% marks or any other examination recognized as equivalent thereto, shall also be eligible for M.Sc. Computer Science under the framework of Honours School System.

Provided that admission of the eligible students other than B.Sc. (Honours) under the framework of Honours School System from Panjab University Campus [cases (i)-(iv)] will be based on their merit in the Entrance Test (OCET) for admission to M.Sc. under the framework of Honours School System, if held by Panjab University, and the respective undergraduate degree required for eligibility and subject to the fulfillment of such other requirements as may be laid down by the Syndicate, which is mentioned in PU Handbook of Information of that year.

The detailed eligibility criterion for joining the M.Sc. Courses along with the number of available seats in various subjects as laid down by the Syndicate are published in Handbook of Information published by Panjab University every year.

4.2 (i) Every student admitted to the M.Sc. shall be on rolls of the University Department, duly approved by the appropriate body of the University for such teaching in the subject concerned, and pay such fees to the University as prescribed by the Syndicate from time to time.

(ii) The Dean of University Instruction may exempt any student from payment of tuition fees on the recommendation of the Chairperson/Head of the Department within the prescribed period.

4.3 A Board of Control shall be constituted in January every year as per University Regulations mentioned in Chapter VII (B), P.U. Calendar Volume I. Subject to the approval of the Dean of University Instruction, the Board of Control shall be the authority to admit students and to remove students from the M.Sc. under the framework of Honours School System in accordance with the rules laid down by the Academic Council.

5. EXAMINATIONS - M.Sc. UNDER THE FRAMEWORK OF HONOURS SCHOOL SYSTEM

5.1 Postgraduate Academic Programme Monitoring and Execution Committee (PGAPMEC):

A Postgraduate Academic Programme Monitoring and Execution Committee (PGAPMEC) shall be appointed by the Board of Control for monitoring and execution of
the academic programmes as per the approved regulations. The composition and functions of the PGAPMEC would be as under:

**Composition:**
(i) PGAPMEC would consist of 5-7 faculty members. It will have a Convener and a Secretary both to be appointed by the Board of Control. The PGAPMEC would work in close collaboration with the Department and the Chairperson.

(ii) The term of PGAPMEC shall be **two years**. After the initial period of two years, 3-4 members including the Convener would retire. A new Convener and Secretary would be appointed for two years by the Board of Control. After another year, the 2 remaining older members will retire making way for 2 new members, so that both replenishment and continuity are maintained. Each member would serve a two year term.

**Functions:**
(i) The PGAPMEC shall look after every aspect of the academic programme in order to ensure the smooth functioning and integrity of all aspects of the programme. It would meet preferably once a month.

(ii) The duties of PGAPMEC will include framing of academic calendar for the year, keeping track of attendance, schedule of Midterm tests and End-semester examinations and **Reappear/Improvement examinations**, assignment of project supervisors to the students, tabulation of marks after careful scrutiny, computerized storage of data, regular monitoring to ensure that the University rules and regulations are followed properly and any other duty assigned by the Chairperson/Board of Control.

**For the re-appear end-semester examinations to be held in June/July/August and all other special re-appear chance examinations, the last dates by which examination forms and fees must reach the Controller of Examinations (COE) without and with late fee will be decided by the CBCS Co-ordinator in consultation with COE. CBCS Co-ordinator(s) will be faculty members the Departments running Honours School Courses and appointed in the meeting of the Chairpersons of all such departments.**

(iii) Admissions to the continuing/ongoing students shall be monitored by PGAPMEC and Board of Control.

(iv) The mode of evaluation for the project reports will be decided by PGAPMEC and Board of Control.
(v) PGAPMEC shall make recommendations regarding complaints and settle disputes, if any, against paper-setting and evaluation. PGAPMEC will recommend the cases of unfair means by a student in the examination to BOC for final decision.

(vi) All decisions taken by PGAPMEC shall be subject to approval by Board of Control.

5.2 Conduct of Examination and Evaluation

The assessment of the students will be completely internal. The teacher for a particular theory course will be the paper-setter(s) and the evaluator. However, the persons as mentioned in Rule 8, Chapter XXX ‘Conduct of Examinations’, P.U. Cal. Vol. III shall not be eligible for appointment on the supervisory staff. Evaluation of theory papers, laboratory courses and Project work/Thesis work alongwith the Internal Assessment shall be as mentioned in the Syllabi. The broad guidelines are given below:

5.2.1 Evaluation in theory papers

The evaluation in theory papers will consist of two components:

(a) Internal Assessment having weightage of 20% of the total marks and consisting of mid-term examination, surprise tests etc.

(b) End-Semester examination worth 80% marks and of 3 hours duration.

A. Mid-term examinations

(i) Tests for Internal Assessment will be conducted by the class teacher as per the pre-announced schedule given by PGAPMEC.

(ii) The style of the question paper for the Internal Assessment examinations should be such that more emphasis is on problem solving.

(iii) Only in special cases with valid reasons and with the prior permission of PGAPMEC, where the student misses the mid-term examination, retest for mid-term examinations will be held. However, there will not be any reappear in the mid-term test.

(iv) The evaluated answer scripts would be shown to the students. Answers would be discussed and the rationale of assessment be explained to the students. Answer scripts would be retained by the concerned teacher for one year after the declaration of the End-semester result.

(v) The awards for the Midterm test should be submitted to the office before the commencement of end semester examinations. Their record will be kept in the office and further used in case a candidate takes this course as a reappear candidate.

B. End-semester examinations
The end-semester examination will also be held as per the date-sheet formulated by PGAPMEC. In case of Generic Elective papers, the date-sheet for the end-semester examination will be announced by the respective department teaching the subject in consultation with the student’s parent department. As far as possible, any change in date-sheet for the end-semester examination should be avoided. In case the change is unavoidable, then it should be done in consultation with the Convener, PGAPMEC.

(i) The question-paper format/distribution for the end-semester examination is mentioned in the relevant prescribed syllabus.

(ii) The evaluated answer scripts would be shown to the students, according to a schedule announced by the concerned department. Answers would be discussed and the rationale of assessment be explained to the students. After discussing the answers with the students, the teacher would finally submit the award list to the PGAPMEC Convener along with undertaking from any of the affected student if he or she does not want the grace as per University rules to pass that paper. Answer scripts would be retained by the concerned teacher for one year after the declaration of the result.

(iii) In case of any disagreement, the decision of the BOC shall be final.

5.2.2 Evaluation in a Laboratory course

The student will be expected to complete a specific number of experiments as per the syllabus. The evaluation in a Laboratory course will consist of two components:

(a) Internal Assessment having weightage of 20% of the total marks.

(b) End-Semester examination worth 80% of the total marks.

A. Internal assessment

In a Laboratory course, 20% of the total marks would be allotted to internal assessment component. It will be based on practical performance of the students in the laboratory, number of experiments performed, written report/record of the experiments and regularity (attendance) etc. in the class.

B. End-Semester examination

(i) The end-semester examination in the laboratory course will carry the remaining rounded off (80%) marks allotted to it. The examination will be conducted by an internal examiner and a neutral examiner.

(ii) The End-Semester examination will consist of different components, viz., Performance in experiment, written paper consisting of short answer questions based on all experiments and/or Oral Viva-voce by the neutral examiner during End-semester examination, Viva-voce of each of the experiment by the concerned
teacher during the semester (Continuous evaluation), and Seminar delivered/Report submitted, if any, by the student on allocated topic/Collection/field visit/Industrial visit, etc. as mentioned in the prescribed syllabus. Otherwise, **PGAPMEC of each department must formulate distribution of marks for various components and get it approved by the BOC.**

The awards for internal assessment of the students in the Laboratory Courses will be submitted to the office separately (along with the final awards). The records for other components of examination will be maintained and further used in case a candidate takes this course as a reappear candidate.

(iii) Examiners for Laboratory Courses shall be appointed by the Chairperson/BOC on the recommendation of the PGAPMEC.

**5.2.3 Evaluation in a Project work/Thesis work**

PGAPMEC of each department must formulate distribution of marks for various components of the evaluation in a Project work/Thesis work and get it approved by the BOC. The supervisor will be responsible for the continuous evaluation component of the student.

Examiners for Project work/Thesis work shall be appointed by the Vice-Chancellor/Chairperson/BOC on the recommendation of the PGAPMEC. For the Project work/Thesis work presentation evaluations, the examination board will consist of Concerned Supervisor, neutral examiner(s) from the same Department or other relevant Department or outside the University.

**6. EXAMINATION FORMS**

**6.1** Every candidate appearing for the M.Sc. examination shall send his/her application through the Chairperson of the Department, accompanied by the following certificates:

(a) of having been on the rolls of the department preceding the examination;
(b) of having good moral character; and
(c) of having fulfilled the attendance requirements as prescribed in the **Handboook of Information**;

**6.2** The last dates by which Examination forms and fees for regular end-semester examinations must reach the Controller of Examinations without and with late fee shall be fixed by the Syndicate from time to time.

For the re-appear end-semester examinations to be held in June/July/August and all other special re-appear chance examinations, the last dates by which examination forms and fees must reach the Controller of Examinations (COE) without and with
late fee will be decided by the CBCS Co-ordinator in consultation with COE. BOC can recommend the cases to COE for remission of the Late fees for these re-appear end-semester examinations, in case it is due to delay on the part of the teacher in showing the evaluated answer books to the student.

6.3 The amount of the admission fee without and with late fee for each semester examination to be paid by a candidate shall be as prescribed by the Syndicate from time to time.

7. **EXAMINATION SCHEDULE**

7.1 Examination in the theory papers/practicals shall be held at the end of each semester according to the scheme of examination approved by the Academic Council.

7.2 The examinations of various semesters will be held on such dates as may be fixed by the Syndicate from time to time.

The examination shall be conducted at the end of each semester in only those courses which have been offered in that semester, i.e., First & Third semesters in November/December and Second & Fourth semesters in April/May, respectively, or as decided by the University. The scheme of examination shall be in accordance with the syllabi approved by the Faculty of Science and Academic Council.

7.3 Various end-semester examinations will be held on such dates as may be fixed by the PGAPMEC/BOC from time to time keeping in view that requisite number of lectures are delivered for the course.

7.4 A student who has failed in any of the semester courses shall be eligible to clear the same in the forthcoming regular end-semester examinations and the additional reappear examinations to be held in June/July/August, i.e., preferably before the admissions to the odd-semester. The dates of the additional examination may even be fixed outside these months subject to approval by the Syndicate. The reappear examination for the odd-semesters will preferably be scheduled first. The reappear examination for the recently held even-semester examination will preferably be scheduled later. PGAPMEC will play proactive role to prepare date-sheet for the end-semester reappear examinations to be held in June/July/August keeping in view the dates on which the answer-books for the recently held even semester examinations are shown by the concerned teachers.

8. **RESULTS and PASSING CRITERION**
8.1 The sum total minimum marks (internal assessment and end-semester examinations) are required to pass the examination shall be 40% in each theory paper and laboratory paper separately.

8.2 The teachers involved in the evaluation of different theory/laboratory courses will submit the final awards to the dealing person in the office by a stipulated date. He/she will enter these awards in the register on the pages assigned to different students. This work will be supervised by the concerned member of the PGAPMEC.

8.3 Once the result is ready, it would be displayed on the Notice Board of the department as provisional result under the signature of the Chairman.

8.4 The student may submit written representation to the Chairperson or PGAPMEC convener/secretary within two days, if there are any discrepancies. These would then be passed on to the concerned teacher/dealing Clerk for re-dressal.

8.5 The final result consisting of detailed marks in Internal Assessment and the end-semester examinations and Grades will be sent to the Controller of Examinations within 2 weeks of the date of the last paper held. The Controller of Examinations of the University would declare the result within next 2 weeks.

8.6 Overall result of M.Sc. course shall be determined on the basis of the marks/credit obtained by the candidate in the examination concerned, which shall be converted into grades as per formula approved by Panjab University Syndicate. Grading system for Choice Based Credit System (CBCS) for M.Sc. under the framework of Honours School System Courses at Panjab University is given in Annexure I.

8.7 The Result-cum-Grade Card for each semester will be issued only once after the candidate clears all the Courses of that semester and previous semesters. The detailed Result-cum-Grade card of each Semester shall show \((SGPA)_E\), \(SGPA\) and \((CGPA)_E\). \((SGPA)_E\) is the Grade result at the end of the regular end-semester examination and cannot be improved upon. \(SGPA\) is the Grade result of the Semester, when the candidate qualifies all the papers of the Semester. \((CGPA)_E\) is Cumulative Grade of the current and previous semester examinations, when the candidate qualifies all the papers of the Semester. The degree shall indicate the CGPA, which is \((CGPA)_E\) of the last semester and the corresponding Grade Letter (Annexure I) with which the candidate has passed the examination.

Merit positions for each year will be declared on the basis of \((SGPA)_E\). Merit positions for the overall degree will be declared on the basis of total marks obtained by the candidate, provided the candidate has qualified all the papers in regular examinations, i.e., \((SGPA)_E\) matches with SGPA for all the semesters.
8.8 (i) A student who appears in an odd semester examinations or who was eligible to
appear in the odd semester examinations, but remains absent in any or all the
papers of the said semester, shall move on to the next even semester irrespective
of his/her result in the said examination.

(ii) A student shall be promoted to 3rd Semester of M.Sc. under the framework of
Honours School System, subject to the condition that he/she obtains 50% of total
credits in M.Sc. 1st and 2nd Semester (combined).

(iii) Student who does not fulfill the promotion criteria mentioned above shall be
declared fail in the promotion examination of the academic year concerned.
However, he/she shall have the option to retain the marks in the papers of
his/her choice.

(iv) If a student has secured an aggregate of minimum 40% marks taking together all
the papers in theory examination (including internal assessment/project,
wherever applicable) and practical examination separately till the end of second
year, i.e., upto the end of the IVth semester, then she/he shall be awarded the
degree in which the student has been admitted.

8.9 AWARD OF M.Sc. DEGREE

(i) A student shall be awarded the degree of M.Sc. under the framework of Honours
School System provided that he/she earns the requisite 80 credits.

However, if a student has backlog of some theory papers/laboratory course after
completing the attendance requirement of all the four semesters, he/she may be
allowed to take re-appear examinations as an ex-student as and when these are
held, but within three years of his/her admission to M.Sc. under the framework of
Honours School System.

However –

(a) A candidate who does not clear all the courses within two years and fulfills the
attendance requirements and is declared to have failed may be allowed to re-
appear as a late student in a course for the purpose to clear the backlog. For this
purpose he/she may be given not more than two consecutive chances.

(b) A candidate who clears 90% of the credits (fraction to be rounded off to the
advantage of the candidate) may be given another consecutive chance on the
recommendations of the Board of Control to clear the backlog.

(c) If he/she fails, he/she may be given another consecutive chance by the Vice-
Chancellor on the recommendation of the Board of Control. Such a candidate will
be required to appear in the backlog papers as per the current syllabus and he/she
may be permitted to attend the classes. However, the internal assessment originally awarded would stay as such. The dates of entry and leaving the course shall be shown in degree.

8.10 If a student fails to get 40% marks in a theory paper/laboratory course or has missed the end-semester examination in any papers, he/she will be given a re-appear in that course as per University Rules. The reappear student shall be eligible to clear the same in the forthcoming regular end-semester examination and the additional reappear examinations to be held in June/July/August, respectively.

8.11 Any unfair means case of a student in the examination have to be discussed in BOC on the recommendations of PGAPMEC.

9. CHARACTER CERTIFICATE

9.1 The dates of entry and leaving the course shall be shown on the Character Certificate issued by the Department.

9.2 The language of the Character Certificate issued by the department should be changed to incorporate information about the date of joining and completing the M.Sc. degree. It may also have information about participation of the students in extra-curricular activities.

9.3 The character certificate would be signed by the Chairperson when it has initial from the Secretary/Convener of PGAPMEC who will check the data from the record of the students, maintained in the register.

10. IMPROVEMENT - Re-appearance after passing M.Sc. degree:

10.1 A candidate who has passed the M.Sc. under the framework of Honours School System (Semester system examination) from the Panjab University may re-appear as a private candidate in a course, he/she wishes to, with a view to improve his/her performance. For this purpose, he may be given two chances within a period of 5 years from the date of his passing the said degree course.

10.2 Regarding chances for improvement, a chance would mean appearing in the odd-and even-semesters in one academic session and there would be no restriction on the number of papers he/she wants to appear in as per the date-sheet framed for the regular candidates.

In the first instance, the candidate shall be required to intimate all the courses in which he/she would like to improve his/her performance. He/she will then appear in the respective course/s at the main semester examination only, i.e., for the courses
offered for First & Third semesters in the November/December examination and for the Second & Fourth Semesters in April/May examinations. If he/she does not improve his/her performance, in any course/s, he/she shall be eligible to do so in the following year in the semester examination concerned which would be treated as a second chance. The candidate shall be charged examination fee as fixed by the Syndicate from time to time.

10.3 Re-appearance for Improvement in the Practical/Internal Assessment/Project Work shall not be allowed in any case.

10.4 The improvement examination will be held as per current syllabus and along with the regular end-semester examinations.

10.5 A student who wants to re-appear for improvement in marks in a paper prescribed for semester I/III may do so only in the end-semester examinations to be held in December. A student who wants to re-appear for improvement in a paper prescribed in semester II/IV may do so only in the end-examinations to be held in April/May.

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ANNEXURE – I

Calculation of the end-semester (SGPA)ES, (CGPA)ES and final CGPA of a candidate for the M.Sc. under the Framework of Honours School System (Semester System)

Step 1: The end-semester Semester Grade Point Average (SGPA)ES for a given semester will be calculated only once as per the declared result of the candidate at the end of each of the semesters I-IV:

\[(SGPA)_{ES} = \frac{\sum_i C_i G_i}{\sum_i C_i}\]

where, \(C_i\) represents credits allocated to \(i^{th}\) subject examination in a given semester and \(G_i\) represents the numerical grade obtained by the candidate in that paper. The value of \(G_i\) is taken from the percentage marks obtained by the candidate using Table 1.

Table 1: Conversion of Percentage Marks into Numerical Grade for each paper.

<table>
<thead>
<tr>
<th>Percentage Marks (PM)</th>
<th>Numerical Grade</th>
<th>Grade Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 ≤ PM ≤ 100</td>
<td>10</td>
<td>O++</td>
</tr>
<tr>
<td>90 ≤ PM &lt; 95</td>
<td>9.4</td>
<td>O+</td>
</tr>
<tr>
<td>85 ≤ PM &lt; 90</td>
<td>8.9</td>
<td>O</td>
</tr>
<tr>
<td>80 ≤ PM &lt; 85</td>
<td>8.4</td>
<td>A+++</td>
</tr>
<tr>
<td>75 ≤ PM &lt; 80</td>
<td>7.9</td>
<td>A++</td>
</tr>
<tr>
<td>68 ≤ PM &lt; 75</td>
<td>7.4</td>
<td>A+</td>
</tr>
<tr>
<td>60 ≤ PM &lt; 68</td>
<td>6.7</td>
<td>A</td>
</tr>
<tr>
<td>55 ≤ PM &lt; 60</td>
<td>6.0</td>
<td>B+</td>
</tr>
<tr>
<td>50 ≤ PM &lt; 55</td>
<td>5.4</td>
<td>B</td>
</tr>
<tr>
<td>45 ≤ PM &lt; 50</td>
<td>4.9</td>
<td>P+</td>
</tr>
<tr>
<td>40 ≤ PM &lt; 45</td>
<td>4.4</td>
<td>P</td>
</tr>
<tr>
<td>PM &lt; 40</td>
<td>0</td>
<td>F</td>
</tr>
<tr>
<td>Absent</td>
<td>0</td>
<td>F</td>
</tr>
</tbody>
</table>
Step 2: The Cumulative Grade Point Average (CGPA) after the declaration of result at the end of each of the semesters I-IV is calculated by taking into account all the papers of the present and previous semesters:

\[(CGPA)_{ES} = \frac{\sum_j \sum_i C_{ij} G_{ij}}{\sum_j \sum_i C_{ij}}\]

where, \(C_{ij}\) represents credits allocated to \(i^{th}\) paper in \(j^{th}\) semester, \(G_{ij}\) represents the numerical grade obtained by the candidate in that paper as per Table1 (given in Step 1). The calculation of \((CGPA)_{ES}\) will be round off to first decimal place. The \((CGPA)_{ES}\) for Semester IV will be calculated only if a candidate clears all the papers of all semesters and then the final CGPA will be same as the \((CGPA)_{ES}\) of semester IV.

Step 3: The final CGPA after completion of the Course will be assigned a grade letter as per the following Table 2:

<table>
<thead>
<tr>
<th>Numerical Grade - SGPA/CGPA</th>
<th>Category</th>
<th>CGPA Grade Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;8.5</td>
<td>Outstanding</td>
<td>O+</td>
</tr>
<tr>
<td>7.5 - 8.4</td>
<td>Excellent</td>
<td>O</td>
</tr>
<tr>
<td>7.0- 7.4</td>
<td>Meritorious</td>
<td>A+</td>
</tr>
<tr>
<td>6.0 - 6.9</td>
<td>Very Good</td>
<td>A</td>
</tr>
<tr>
<td>5.5 - 5.9</td>
<td>Good</td>
<td>B+</td>
</tr>
<tr>
<td>5.0 - 5.4</td>
<td>Average</td>
<td>B</td>
</tr>
<tr>
<td>4.0 - 4.9</td>
<td>Pass</td>
<td>P</td>
</tr>
<tr>
<td>Below 4.0</td>
<td>Fail</td>
<td>F</td>
</tr>
<tr>
<td>Absent</td>
<td></td>
<td>F</td>
</tr>
</tbody>
</table>

Step 4: 
(i) To calculate the percentage of marks obtained in the entire course, multiply final CGPA numerical grade with 10.

(ii) To calculate the percentage of marks obtained in any of the subjects, multiply numerical grade with 10.