

S-VC ORDERS from June-2016

- 3 -

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY**ORDER NO.SU/ Engg.&Tech./ Ord.,Regu./03/2016**

Whereas the Co-ordinator recommended to enforce the **Bachelor of Engineering and Bachelor of Technology (B.E.& B.Tech.) under Choice Based Credit and Grading System Ordinances No.-945 to 956 and Regulations-2079 to 2101 pertaining to Admission Rules, Scheme of Examination and Standard of Passing etc. to be implement from the academic year 2016-17 & onwards under the Faculty of Engineering & Technology.**

AND

WHEREAS the said Ordinances and Regulations are yet to be considered by the Academic Council and Management Council, it will take quite some time and there after to be assented to by the Hon'ble Chancellor.

AND

WHEREAS the Section-14[8] of the Maharashtra Universities Act, 1994 empowers the Vice-Chancellor to regulate the matter for the time being by issuing such directives as he thinks necessary.

AND

THEREFORE, I, PROF. B.A. CHOPADE, VICE-CHANCELLOR of Dr. Babasaheb Ambedkar Marathwada University, in exercise of the powers conferred on me under Section-14[8] of the Maharashtra Universities Act, 1994, in order to regulate the matter urgently hereby direct that the said Ordinances and Regulations shall be effective from the Academic Year 2016-2017 and onwards are enclosed as per **Appendix-"A & B"**.

THESE, directives shall have **immediate effect** and shall be operative till such time as the Regulations are to be accepted by the Management Council and Ordinances are to be assented by the Hon'ble Chancellor.

University Campus,
Aurangabad-431 004.
REF.NO. SU/ ENGG.& TECH./
2017/ 6621 -51
Date:- 16-01-2017.

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B.A. Chopade
Prof. B.A. Chopade,
Vice-Chancellor.

Copy forwarded with compliments for information and necessary action to :-

- 1] The Head, Department of Chemical Technology,
Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- 2] The Principal, affiliated colleges,
Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
Copy to :-
 - 1] The Controller of Examinations,
 - 2] The Finance and Accounts Officer,
 - 3] The Deputy Registrar, Post Graduate Section,
 - 4] The Superintendent, [Engineering Unit],
Examinations Branch,
 - 5] The Superintendent, [Eligibility Unit],
 - 6] The Record Keeper,
Dr. Babasaheb Ambedkar Marathwada University.

Appendix – “A”

**RULES AND REGULATIONS
FOR
BACHELOR OF ENGINEERING (BE) PROGRAMME
(Effective from Academic Year 2016-2017)**



**Dr. Babasaheb Ambedkar Marathwada University,
Aurangabad**

RULES, REGULATIONS AND ORDINANCES

B. E. PROGRAMME

RULES, REGULATIONS AND ORDINANCES

1. Short Title and Commencement

- i) These ordinances shall be called the Ordinances for Bachelor of Engineering Programme run by the Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- ii) These ordinances shall come into force with effect from such date as approved by the authorities of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

2. Definitions

Unless the context requires otherwise,

- a) **Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the prescribed courses (core, elective or minor or soft skill courses).
- b) **Credit Point:** It is the product of grade point and number of credits for a course.
- c) **Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point
- d) **“Letter Grade”:** It is an index of the performance of students in a said course. Grades are denoted by letters A++, A+, A, B+, B, C+, C and D.
- e) **“Applicant”** shall mean an individual who applies for admission to any B. E. Programme.
- f) **Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.
- g) **Semester Grade Point Average (SGPA):** It is a measure of performance of work done in a semester. It is ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.
- h) **“Course”:** All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials / laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/term papers/assignments/ presentations/ self-study etc. or a combination of some of these.
- i) **“Course Coordinator”** shall mean a faculty member who shall have full responsibility for the course, coordinating the work of other faculty member(s) involved in that course, including examinations and the award of grades.
- j) **“Degree”** shall mean the Bachelor’s degree viz. B. E. and such other degrees of the university as may be approved by the authorities concerned.
- k) **“Direct Admitted Student”** shall mean a student who is admitted directly to second year of the degree program after completion of the Diploma Course and admitted for undergraduate programme for full time study leading to B. E. degree.
- l) **“Programme”** means offering of the University for the Award of degree in a specific branch of study.
- m) **“Student”** shall mean a candidate admitted for an undergraduate programme for full time study leading to Bachelor’s degree.
- n) **“Scheme of Teaching and Examination”** shall mean the scheme of teaching and examination for a

programme of study as approved by the university authorities.

- o) “UG” shall mean undergraduate.
- p) **Semester:** Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from July to December and even semester from January to June.
- q) **Transcript or Grade Card or Certificate:** Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

3. Instructions

- i) Instructions about the curriculum in the various courses in each semester of all the four years shall be provided by the University.
- ii) The details of instruction period, examination schedule, vacations etc. shall be notified by the Principal of the College as per the University academic calendar.
- iii) The medium of instruction and examination shall be English.
- iv) The minimum entry qualification and procedure for admission to UG programmes shall be as per the directives of the Govt. of Maharashtra.
- v) UG student shall be required to earn minimum number of credits through various academic courses of a curriculum as provided for in the regulation.
- vi) A UG student shall be required to complete all the requirements for the award of the Bachelor’s degree within such period as may be specified in the Regulations, including those credits earned at such other institutions/courses as have been recognized by the University for this purpose.
- vii) The date of initial admission for the UG programme shall normally be the date on which the student formally registers for the first time. This date shall be treated as the date of joining the programmes for all intents and purposes.
- viii) A student shall be required normally to attend every lecture, tutorial and practical class. However, for late registration, sickness or other such exigencies, absence may be allowed as provided for in the regulations.
- ix) The procedure for the direct second year admission shall be as per the directives of the Govt. of Maharashtra.
- x) The procedure for the withdrawal from an undergraduate programme, rejoining the programme, the award of grades and the SGPA/ CGPA, the examination and all such matters as may be connected with the running of a UG programme shall be as specified in the regulations.
- xi) The award of the UG degree to an eligible candidate shall be made in accordance with the procedure laid down in the regulations.
- xii) A student admitted to the UG programme shall abide by the “Standing Orders for Students” issued by the Institute from time to time. These standing orders shall deal with the discipline of the students in the Hostels, Departments, the Institute premises and outside. The standing orders may also deal with such other matters as are considered necessary for the general conduct of the students, co-

curricular and extra-curricular activities. The Principal of the college shall approve these standing orders.

- xiii) Notwithstanding anything contained in the above ordinances, no regulations shall be made in contravention of the directives of the Government of Maharashtra, in regard to the duration of the UG programme.

Regulations for the Undergraduate Programme (B. E.)

General

- i) These regulations shall be called the regulations for the Bachelor of Engineering programmes of the university.
- ii) These regulations shall come into force from the academic year 2016-2017.

Regulation 2079

a) Undergraduate Programme

- i) The Undergraduate Programme offered shall lead to Bachelor's degree in Engineering B. E. (Specialization)
- ii) The duration of UG programme leading to degree of B. E. is normally of four years (Eight Semesters). However, the maximum duration to complete the UG programme is eight years from the date of initial admission. The maximum duration of the programme includes the period of absence and different kinds of leaves permissible to a student but it shall exclude the period of rustication/detention of the student from the Institute.

b) Semester System

- i) The academic programmes in the Institutes affiliated to university shall be based on Semester system: two semesters (July-Nov) and (Jan-April) in a year with minimum 90 working days in each semester.
- ii) Each course shall have a certain number of credits assigned to it depending upon the academic load of the course, which would be assessed on the basis of weekly contact hours of theory lectures and laboratory classes, field study. The credits for the Project shall be assigned depending upon the quantum of work expected.
- iii) The courses offered in a semester shall be continually assessed and evaluated to judge the performance of a student.

Regulation 2080

a) Types of Courses

Courses in a programme may be of three kinds: Core, Elective and Foundation.

1. Core Course: -

There may be a Core Course in every semester. This is the course which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Elective Course:-

Elective course is a course which can be chosen from a pool of papers. It may be:

- Supportive to the discipline of study
- Providing an expanded scope
- Enabling an exposure to some other discipline/domain
- Nurturing student's proficiency/skill.

An elective may be "Generic Elective" focusing on those courses which add generic proficiency to the students. An elective may be "Discipline Centric" or may be chosen from an unrelated discipline. It may be called an "Open Elective."

3. Foundation Course:-

The Foundation Courses may be of two kinds: Compulsory Foundation and Elective foundation. "Compulsory Foundation" courses are the courses based upon the content that leads to knowledge enhancement. They are mandatory for all disciplines. Elective Foundation courses are value-based and are aimed at man-making education.

b) Course Codes

The course offered by the Departments shall have an alphanumeric course code consisting of a string of six characters. The first three characters in a course code shall be capital letters identifying the responsible department offering the course. The next three numerical digits give the following information. The first digit specifies the year of study of the UG course. Second and third digit specifies the serial number of the Course.

Proposed Coding System of Course/Paper Six digit code for a Course (UG courses)

1	2	3	4	5	6
Branch			Year	Course No.	
CED	1		First year UG	Semester I	
MED	2		Second year UG	1 -20 Theory	
EEP	3		Third year UG	21-30 Practical	
ECE	4		Fourth year UG	31-40 Service courses	
EXE	5		Fifth year UG	41-49 Electives	
ETC					
IEX					
PED				Semester II	
CSE				51 -70 Theory	
CTD				71-80 Practical	
COE				81-90 Service courses	
ITD				91-99 Electives	
EED					
EEE					
ARH					
BSH					

c) Course Credits

Each course shall have an integer number of credits, which reflects its weightage. The number of credits of course in a semester shall ordinarily be calculated as under:-

(a) *Lectures*: One lecture hour per week shall be assigned one credit.

(b) *Practicals*: One laboratory hour per week shall be assigned half a credit. Not more than three credits may be assigned to a practical course having only laboratory component. The courses having three hours of

contact every alternate week shall have one credit only.

- (c) Special courses like Project, National Cadet Corps (NCC)/National Service Scheme (NSS)/National Sports Organization (NSO) in the UG programme shall be treated as any other course and shall be assigned such number of credits as may be approved by the authorities.

Ordinance 945

Admission

- i) Admissions for first year and direct second year are strictly on the basis of guidelines and rules specified by government authorities from time to time.
- ii) Admission at the beginning of each year is compulsory for every student on the prescribed dates announced from time to time by payment of the stipulated fees till he/she completes the Programme.
- iii) Once the student is admitted to the concern college/Programme, he/she will be promoted to the next semester with full carryon.
- iv) Such students who have passed all the courses prescribed for the both semesters in the year and having no backlog courses will be eligible to admission for the next year.
- v) Such students who have earned at least 36 credits out of 52 credits in the year will be allowed for admission to next year. However these students will have to earn the credit for backlog courses on self-study basis. They can appear for improvement in supplementary examination from next semester onwards.
- vi) Such students who have failed to earn 36 credits out of 52 credits in the academic year will not be allowed for admission to next higher class. They will have to appear for improvement in their results in the Course/s failed from subsequent examination. They will be eligible for admission to higher class when credits earned by them are 36 or more.
- vii) For the admission to the third year, the student should have passed all the courses of the first year. Student must have earned 52 credits of First Year and earned minimum 36 credits out of 52 credits in second year.
- viii) For the admission to the final year, the student should have passed all the courses of the second year. Student must have earned 52 credits of Second Year and minimum 36 credits out of 52 credits in third year.
- ix) Every student shall register for the courses that he/she wants to study for earning credits and his /her name will appear in the roll list of each such course. No credit shall be given if a student attends a course for which he or she has not registered.

Dropout student will be allowed to register for respective year as and when the concerned courses are offered by the college, subject to the condition that his/her tenure should not exceed more than twice the duration of course from the date of first registration at Parent College.

The admission of student will be automatically get cancelled if he/she fails to complete the Programme in maximum period (Eight Years/ Sixteen Semesters for first year admitted students and Six years/twelve semesters for direct second year admitted students).

Regulation 2081**Monitoring Committee for Undergraduate Program**

Every undergraduate programme of the college shall be monitored by a committee constituted for this purpose by the college. The committee shall consist of Principal as a Chairman and Senior Faculty members as its members.

Change of Branch (Specialization)

As per the rules and regulations specified by competent authority from time to time.

Termination of Enrolment on Academic Grounds

The enrolment of a student may be terminated on disciplinary grounds, in accordance with the Standing Orders of the competent authority.

Ordinance 946**Attendance, Absence, Leave Rules and Dismissals**

- i) An undergraduate student must have a minimum attendance of 90 % of the total number of classes including lectures, tutorials and practical, before the corresponding examination i.e. End Semester Examination, in order to be eligible to appear for the respective examination in the course, failing which the student will be detained in the said course and has to re-admit for semester/year.
 - a. In special cases and for sufficient causes shown, the Principal of the college may, on the specific recommendation of the Course coordinator/Head of the Department, condone the deficiency in attendance to the extent of 15 % on medical ground subject to submission of medical certificate.
 - b. However, in respect of women candidates who seek condonation of attendance due to pregnancy, the Principal of the college may condone the deficiency in attendance to the extent of 25 % (as against 15 % Condonation for other) on medical grounds subject to submission of medical certificate to this effect. Such condonation shall not be availed twice during the Programme of study.
- ii) Active Participation in N.C.C/N.S.S. Camps or Inter collegiate or Inter University or Inter State or International matches or debates or Educational Excursions or such other Inter University activities as approved by the authorities involving journeys outside the city in which the college is situated will not be counted as absence. However, such 'absence shall not exceed (4) weeks per semester of the total period of instructions. Such leave should not be availed more than twice during the entire Programme of study.
- iii) The attendance shall be calculated on the aggregate of the papers/courses from the date of commencement of the semester.
- iv) In case of the candidates who fail to put in the required attendance in a course of study, he/she shall be detained in the same class and will not be recommended to appear for the University examination.
- v) A candidate detained in semester I should take readmission in next academic year as a regular student and shall have to complete all the theory and practicals as a regular student.
- vi) In case a candidate is detained in semester II, he/she should take admission to Semester II of next academic year and complete all the theory and practicals as a regular student of semester II.
- vii) In case of change of syllabus the candidate even if detained in semester II should take readmission in next

academic year for Semester I and II as a regular student and complete all the theory and practicals as a regular student.

- viii) If student is found guilty of malpractice in examinations, involvement in ragging and overall misconduct during his/her stay in the institute, he/she will be punished as per the rules of the University/the Government of Maharashtra.

Regulation 2082

a) Rules for Examination

- i) Application for permission to appear at every examination shall be made in the prescribed format accompanied by one passport size full face photograph (not profile) along with the necessary certificates and the prescribed fee, should be submitted to the Principal of the institute on or before the date fixed for this purpose.
- ii) When a candidate's application is found in order and he/she is eligible to appear at an Examination, the Principal of the institute is empowered to furnish him/her with a Hall-Ticket with the photograph affixed to it, enabling the candidate to appear in the Examination, and this Hall-Ticket shall have to be produced by the Candidate before he/she is admitted to the premises where the Examination is being held.
- iii) A Candidate who does not present himself/herself for the examination for any reason whatsoever, excepting shortage of attendance, shall not be entitled to claim refund of the whole or part of the examination fee, for subsequent Examination(s).
- iv) As engineering is a full time Programme, no candidate shall be allowed to put in attendance for a Programme or appear at examinations for different degrees and different faculties at one and the same time.
- v) Students who have appeared once at any examination of the course need not put in fresh attendance, if they wish to reappear at the corresponding examination, notwithstanding the fact that the College may have introduced new course. They will, however, have to appear at the examinations according to the scheme of examination and syllabi in force.
- vi) If a student fails or is absent in the End Semester Examination (ESE) of a course, he/she may appear for supplementary examination. Such supplementary examination shall be held along with next semester examination.

b) Examination Scheme

- i) A student shall be evaluated for his/her academic performance in a course through tutorials, practicals, homework assignments, term papers, field work, seminars, quizzes, Test Examinations, and the End-Semester Examination as applicable according to the guidelines formulated for this purpose.
- ii) There would be at least two class test, out of which one may be online test examination during the semester. The weightage of the class test for the course having ESE of 80 marks will be of 20 marks and the course having ESE of 40 marks will be of 10 marks (1-Hour duration) in every theory course. The class test performance shall be considered as an average of two class tests.
- iii) At the end of the semester, there would be an End Semester Examination as per syllabus. For the examination of First Year for the academic year 2016-2017, the minimum percentage for passing for each course code, term work, practical examination and ESE is 40 %, failing which he/she will get D grade for

that course code. This rule will be progressively applicable for higher classes in next consecutive years.

- iv) The project work shall be evaluated by midterm seminar(s), quality of work carried out, project report submission and the viva-voce examinations.
- v) Rule for combined passing:
 1. To pass the examination a candidate must obtain minimum 40% of Marks in each End Semester Examination & class test taken together, however the candidate must obtain minimum 35% of Marks in the End Semester Examination.
 2. To pass a Course where there is no provision of class test, the candidate must obtain 40% of Marks in the End Semester Examination.
 3. Minimum two-class tests should be conducted in semester for a Course, if provided. The average performance out of the Two-class test should be forwarded to the Controller of Examinations.
 4. If the candidate remains absent for the class-test, his performance should be treated as 'Zero' Marks.

Regulation 2083

The Grading System

For every course taken by a student, he/she is assigned a grade based on his/her combined performance in all the assessments including laboratory or any other assignment. The grade indicates a qualitative assessment of the student's performance and is associated with equivalent number called a grade point.

The academic performance shall be graded on a ten-point scale following guidelines given in Appendix-A. The letter grades and their equivalent grade points are listed in the Appendix-A.

The letter Grades (up to P only) awarded to a student in all the courses shall be converted into a semester and cumulative performance index called the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA), to be calculated by following the procedures given in Appendix-B.

Ordinance 947

Scrutiny of Grades

A student may apply for scrutiny of grades to the Controller of Examinations (COE), by paying the specified fees, within seven days from the date of scheduled display of grades. The Faculty Coordinator / Dean will communicate the panel of experts to the Controller of Examinations for checking the entry of the weightage from different components of evaluation and their addition, the addition of marks in the final answer scripts and unchecked questions, etc., if any. Based on recommendations by panel, the Director of evaluation will take appropriate steps for further evaluation of grades/marks. The results of scrutiny may lead to either a change in grade due to error(s) in any of the aspects scrutinized by the committee or the grade may remain unchanged, COE will display the results. In the event of no change in the grade after revaluation, it shall be declared as "No Change".

Regulation 2084**CGPA for Direct Second Year admitted students**

In case of the students directly admitted to second year through direct second year admission process, the CGPA shall be calculated on basis of his/her performance in three years (Six Semester) i.e. second year, third year and final year.

Regulation 2085**Conversion of Percentage system students into CGPA**

In case of students who have completed earlier classes in percentage system and shall be taking admission in CGPA system from second year onwards for them the marks obtained in previous examination/s conducted in percentage system will be converted into SGPA for respective years on completion of all courses of that year ($\% \text{ Score divided by } 10$). This converted SGPA shall be used for calculating CGPA of the student.

Regulation 2086**Minimum Students Requirement for an Elective Course**

An elective course in a department shall run only if minimum 15 students from the sanctioned intake registers for it in a regular semester. However, under special circumstances, a course may run with fewer students with prior permission of the Principal of the college.

Ordinance 948**a) Minimum Requirements for the Award of the Degree**

- i) The minimum total no. of credits requirement for each programme is 208 for First Year admitted students.
- ii) The minimum total no. of credits requirement for each programme is 156 for Direct Second Year admitted students.
- iii) The student should have taken and passed all the prescribed courses under the general institutional and departmental requirements and the student should have paid all the dues.
- iv) The student should have satisfactorily fulfilled other academic requirements like visits, seminar and the project and the student should have no case of indiscipline pending against him/her.
- v) The credits for the courses in which a student has obtained "C" (minimum passing grade for a course) grade or higher shall be counted as credits earned by him/her.

b) Maximum Period for Completion of Programme

In any case, a student should fulfill the requirements for his/her respective degree within the maximum period specified for each degree as given below.

B. E. Programme (4 years): Eight years

B. E. Programme (for direct admitted students to second year): Six years

Regulation 2087

a) Interpretation of Regulations

In case of any dispute, difference of opinion in interpretation of these regulations or any other matter not covered in these regulations, the decision of the Vice -Chancellor shall be final and binding.

b) Discretionary Powers

Notwithstanding anything contained in the above regulations or in any extraordinary situations as the Programme Head and/or Dean think necessary, Principal of the institute may take action on behalf of the university as he/she feels appropriate and report it to the Vice-Chancellor of the university.

APPENDIX – A**Regulation 2088****Structure for Grading of Academic Performance**

Grade	Grade points	Range of Marks	Grade Description
A++	10	86-100	Outstanding
A +	9	76-85	Excellent
A	8	66-75	Very Good
B ⁺	7	61-65	Good
B	6	56-60	Fair
C ⁺	5	51-55	Average
C	4	40-50	Below Average
D	0	Below	Fail

[For securing minimum grade of passing for a course code, student must get minimum 40 % marks in that course code. Additionally for securing minimum grade of passing for a course code having theory paper of ESE, student must get minimum 35 % marks (in case of fraction rounding of marks will be on higher side) in theory paper of ESE of that course code.]

APPENDIX - B**Ordinance 949****Performance Indices**

- (i) **Calculation of Semester Grade Point Average (SGPA)** The performance of a student in a semester is indicated by a number called SGPA. The SGPA is the weighted average of the grade points obtained in all the courses registered by the student during the semester.

$$SGPA = \frac{\sum_{i=1}^n C_i P_i}{\sum_{i=1}^n C_i}$$

Where,

C_i = The number of credits assigned in the i^{th} course of a semester for which SGPA is to be calculated

P_i = Grade point earned in the i^{th} course.

$i = 1, 2, \dots, n$ represent the number of courses in which a student is registered in the concerned semester

The SGPA is calculated to two decimal places.

- (ii) **Calculation of Cumulative Grade Point Average (CGPA)**

An up to date assessment of the overall performance of a student from the time of his first registration is obtained by calculating a number called CGPA, which is weighted average of the grade points obtained in all the courses registered by the student since he/she entered the Institute.

$$CGPA = \frac{\sum_{j=1}^n C_j P_j}{\sum_{j=1}^n C_j}$$

Where,

C_j = The number of credits earned in the j^{th} course up to the semester for which CGPA is to be calculated

P_j = Grade point earned in the j^{th} course.

$j = 1, 2, \dots, m$ represent the number of courses in which a student is registered up to the semester for which the CGPA is to be calculated

The CGPA is also calculated to two decimal places.

Ordinance 950**Guidelines for the Award of Grades**

The following are the general guidelines for the award of grades:

- i) For each student, all evaluations in different components of a course shall be done in absolute marks

considering the weightage in the scheme.

- ii) The marks of various components shall be added to get total marks secured.
- iii) As per the CGPA, absolute grading for the students of each class of different programme will be made on 10-point scale. The student securing maximum CGPA will get 10 points. This absolute grading will be allotted for those students who have passed all the courses prescribed for the both semester in the year and having no backlog courses.
- iv) The CGPA and percentage equivalence of grade points of the 10 point scale for the course of study shall be as given in Appendix C.
- v) The punishment to the student for adopting unfair means at the examination shall be as mentioned in Appendix D.

APPENDIX - C**Regulation 2089****a) Equivalence of CGPA and Class**

The percentage equivalence of grade points for the ten points scale will be as below.

Class	Range
First Division with Distinction	$CGPA \geq 7.0$
First Division	$7.0 > CGPA \geq 6.0$
Second Division	$6.0 > CGPA \geq 5.0$
Pass Class	$CGPA < 5.0$

b) Percentage Equivalence of CGPA

Wherever necessary the Grade Point Average can be converted to percentage of marks.

$$\text{Percentage of Marks} = CGPA \times 10$$

APPENDIX - D**Regulation 2090****Unfair Means Committed by the Student**

1. The Board of Examinations shall be the competent authority to take disciplinary action against a student for his misconduct due to his unfair means committed by him at the examination conducted by the University.
2. The Principal of the college shall be the competent authority to take disciplinary action against a student for his misconduct due to his unfair means committed by him at the examination conducted by the University, recognized Institution of behalf of the University.
3. Definition- Unless the context otherwise requires
 - (a) Student means and includes a person who is enrolled as such by the University/college/Institution for receiving instruction qualifying for any degree, diploma or certificate awarded by the University. It includes ex-student and student registered as candidate (examinee) for any of the Degree, Diploma or Certificate examinations.
 - (b) Unfair Means includes one or more of the following acts or omissions on the part of student/s during the examination period.
 - i. Possessing unfair means material and or copying there from.
 - ii. Transcribing any unauthorized material or any other use thereof.
 - iii. Intimidating or using abusive language or threatening or use of violence against invigilator or person on duty for the conduct of examination or man-handling him/her or leaving the examination hall without permission of the supervisor or causing disturbances in any manner in the examination proceedings.
 - iv. Unauthorized communicating with other examinees or anyone else inside or outside the examination hall.
 - v. Mutual/Mass copying
 - vi. Smuggling out, either blank or written or smuggling in of answer books as copying material.
 - vii. Smuggling in blank or written answer book forging and forging signature of the Jr. Supervisor therein.
 - viii. Smuggling in blank or written answer book forging and forging signature of the Jr. Supervisor therein.
 - ix. Interfering with or counterfeiting of University/College Institution seal or answer books or office stationary used in the examination.
 - x. Impersonation at the University/college/Institution examination.
 - xi. Revealing identity in any form in the answer written or in any other part of the answer book by the student at the University or College or Institution examination.
 - xii. Or any other similar act/s omission/s which may be considered as unfair means by the competent authority.
 - (c) "Unfair means relating to examination" means and includes directly or indirectly communicating or attempting to commit or threatening to commit any act or coercion, undue influence or fraud or

malpractice with a view to obtaining wrongful gain to him or to any other person or causing wrongful loss to other person/s.

- (d) "Unfair means material" means and includes any material whatsoever, related to the Course of the examination, printed, typed, handwritten or otherwise on the person or on clothes, or body of the student (examinee) or on wood or other material, in any manner or in the form of chart, diagram, map or drawing or electronic aid etc. which is not allowed in the examination hall.
- (e) "Possession of unfair means material by a student" means having any unauthorized material on his/her person or desk or chair or table or at any place within his/ her reach, in the examination centre and its environs or premises at any time from the commencement of the examination till its conclusion.
- (f) " Student found in possession" means a student reported in writing as having been found in possession of unfair means material by Jr. Supervisor, Sr. Supervisor, member of the Vigilance committee or Examination squad or any other person authorized for this purpose in this behalf, even if the unfair means material is not produced as evidence because of its being reported as swallowed or destroyed or snatched away or otherwise taken away or spoiled by the student or by any other person acting on his behalf to such an extent that it has become illegible.
Provided that report to that effect is submitted by the Sr. Supervisor of chief Conductor or any other authorized person to the Controller of Examinations, Principal of the college concerned or any officer authorized in this behalf.
- (g) Material related to the Course of Examination means and includes, if the material is produced as evidence any material certified as related to the Course of examination by a competent person and if the material is not produced as evidence or has become illegible for any of the reasons referred to in clause (f) above, the presumption shall be that the material did relate to the Course of the examination.
- (h) "Chief Conductor", means and includes Principal of the college concerned where concerned examination is being conducted and any other person duly authorized by him or person appointed as In charge of examination, by the authority competent to make appointment to such post.
4. Where the examination of the University courses are conducted by the constituent college/recognized Institute on behalf of the University, the Principal of the college on receipt of a report regarding use of unfair means by any student at any such examination including breach of the rules laid down by the Management council or by the College/recognized institution for proper conduct of examination, shall have power at any time to institute inquiry and to punish such unfair means or breach of any of the rules by exclusion of such a student from any such examination or any University course in any college/Institution either permanently or for a specified period or by cancellation of the result of the student in the college/recognized Institution examination for which he/she appeared or by deprivation of any college/Institution scholarship or by cancellation of the award of any college/Institution prize or medal to him/her or by imposition of fine not exceeding Rs.300/- or in any two or more of the aforesaid ways.
5. During examination, examinees and other students shall be under disciplinary control of the Chief Conductors.

6. Chief conductor/s of the examination centre shall in the case of unfair means, follow the procedure as under:-
- a) The student shall be called upon to surrender to the Chief Conductor, the unfair means material found in his or her possession, if any, and his/her answer-book.
 - b) Signature of the concerned student shall be obtained on the relevant materials and list thereon. Concerned Senior Supervisor and the Chief Conductor shall also sign on all the relevant materials and documents.
 - c) Statement of the student and his undertaking in the prescribed format and the statement of the concerned Jr. Supervisor and Sr. Supervisor shall be recorded in writing by the Chief Conductor (Appendix-III). If the student refuses to make statement or to give undertaking the concerned Sr. Supervisor and / or Chief Conductor shall record accordingly under their signature.
 - d) Chief Conductor shall take one or more of the following decisions depending upon seriousness/gravity of the case:-
 - i) In the case of impersonation of violence, expel the concerned student from the examination and not allow him/her to appear for remaining examination.
 - ii) Obtain undertaking from the student to the effect that the decision of the concerned competent authority in his/her case shall be final and binding and allow him/ her to continue with his/ her examination.
 - iii) May report the case to the concerned Police Station as per the provision of Maharashtra Act No. XXXI 1982 – An act to provide for preventing Malpractice's at University Board and other specified examinations (Appendix-III) Proforma A & B.
 - iv) Confiscate his / her answer books mark it as suspected unfair means case and issue him/her fresh answer books duly marked.
 - v) All the material and list of material mentioned in sub-clause (a) and the undertaking with the statement of the student and that of the Jr. Supervisor as mentioned in clause no. (b) & (c) and the answer-book/s shall be forwarded by the Chief conductor along with his report to the concerned Controller of Examinations/ Principal of the college, as the case may be, in a separate and confidential sealed envelope marked “ suspected unfair means case”
 - vi) In case of unfair means of oral type, the Jr. Supervisor and the Sr. Supervisor or concerned authorized person shall record the facts in writing and shall report the same to the concerned Controller of Examinations/ Principal of the college, as the case may be.

b) The broad categories of unfair means adopted by students at the University/ College/ Institution examination and the quantum of punishment for each category thereof.

Sr. No.	Nature of Malpractices	Quantum of Punishment
1.	Possession of copying material	Annulment of the performance of the student/s at the University/ College/ Institution Examination in full:- (Note: - This quantum of punishment Shall apply also of the following categories of malpractices at Sr. No. 2, to Sr. No.12 in addition to the Punishment prescribed thereat)
2.	Actual copying from the copying material.	Exclusion of the student from university or College or Institution examination for one additional examination.
3.	Possession of another students Answer Book	Exclusion of the student from University or College or Institution examination for one additional examination (Both the students)
4.	Possession of another students Answer book+ actual evidence of Copying	Exclusion of the student from University or College or Institution examination for two additional examination (Both the Students)
5.	Mutual / Mass copying.	Exclusion of the student from University or College or Institution examination for two additional examinations.
6. (a)	Smuggling out or smuggling in of Answer book as copying material.	Exclusion of the student from University or College or Institution examination for two additional examinations.
6. (b)	Smuggling in of written answer book based on the question paper set at the examination	Exclusion of the student from University or College or Institution. Examination for three additional examinations.
7.	Attempt to forge the signature of the Jr. Supervisor on the answer book or Supplement.	Exclusion of the student from the University or College or Institution examination for four additional examinations.
8.	Interfering with or counterfeiting of University / College/ Institution seal or Answer books. Or office stationary used in the examination	Exclusion of the student from University or College or Institution examination for four additional examinations.
9.	Answer book main or supplement written Outside the examination hall or any other insertion in answer book.	Exclusion of the student from University or College or Institution examination for four additional examinations.

10.	Insertion of currency notes/to bribe or attempting to bribe any of the persons/s connected with the conduct of Examination	Exclusion of the student from University or College or Institution Examination for four additional examinations. (Note:- This money shall be crated to the Vice-Chancellor's Fund
11.	Using obscene language/violence/ threat at the examination Centre by a student at the University/ College / Institution Examination to Jr./ Sr. Supervisor/ Chief Conductor or Examiners.	Exclusion of the student from University or College or Institution examination for four additional Examinations.
12.(a)	Impersonation at the University/ College / Institution examination	Exclusion of the Student from University or College or Institution examination for five additional examinations, (Both the students if impersonator is University or College or Institute student)
12.(b)	Impersonation by a University/ College/ Institute student at S.S.C./ H.S.C./ any other Examinations.	Exclusion of the Student from University or College or Institution examination for
13.	Revealing identity in any form in the answer written or in any other part of the Answer book by the student at the University or College or Institution Examination	Annulment of the performance of the student at the University or College or Institution Examination in full.
14.	Student found having written on palms or on the Body, or on the clothes while in the Examination	Annulment of the performance of the student at University or College or Institution Examination in full.
15.	All other mal-practices not covered in the aforesaid categories.	Annulment of the performance of the student at the University or college or Institution Examination in full and severe punishment depending upon the gravity or the offence.
16.	If on previous occasion a disciplinary action was taken against a student for malpractice used at examination and he/she is caught 'again for malpractices used at the examinations, in this event he/she shall be dealt with severely. Enhanced punishment can be imposed on such student. This enhanced punishment may extend to double the punishment provided for the offence when committed at the second or subsequent examination.	

PRACTICAL/DISSERTATION/PROJECT REPORT EXAMS.	
17.	Student involved in malpractices at practical/ dissertation/ project report examination shall be dealt with as per the punishment provided for the theory examination.
18.	The competent authority in addition to the above mentioned punishments may impose a fine not exceeding Rs. 300/- on the student declared guilty.
	Note: - The term annulment of performance in full' includes performance of the student of the theory as well as annual practical examination, but does not include performance at term work, project work and dissertation examination unless malpractice used thereat.

Instructions for preparing detailed syllabus

- The entire syllabus for 80 marks theory paper should be divided in six units
- The entire syllabus for 40 marks theory paper should be divided in six units
- The syllabus is to be submitted in the format enclosed herewith
- Wherever required the treatment expected either mathematical/theoretical needs to be mentioned
- The total syllabus needs to be of 40 hours teaching for 80 marks theory paper
- The total syllabus needs to be of 20 hours teaching for 40 marks theory paper
- At the end of the syllabus pattern of the question paper as given herewith needs to be mentioned

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Faculty of Engineering & Technology) Syllabus of F. E. (All) Semester-I/II		
Code No.:		Title:
Teaching Scheme:		Class Test:
Theory:		Theory Examination (Duration):
Tutorial:		Theory Examination (Marks):
Credits:		
Objectives	:	
Unit-I	:	
Unit-II	:	
Unit-III	:	
Unit-IV	:	
Unit-V	:	
Unit-VI	:	
Reference Books:	:	
Additional Reference Books	:	

Section A: Includes Unit I, II and III; **Section B:** Includes Unit IV, V and VI.

All units carry equal weightage

Pattern of Question Paper:

The six/four units in the syllabus shall be divided in two equal parts i.e. 3 units respectively. Question paper shall be set having two sections A and B. Section A questions shall be set on first part and Section B questions on second part. Question paper should cover the entire syllabus.

For 80 marks Paper:

1. Minimum ten questions
2. Five questions in each section
3. Question no 1 from section A and Question no 6 from section B be made compulsory and should cover complete syllabus of the respective section and should be set for ten marks each. The Question no.1 and 6 should be of objective nature.
4. Two questions of 15 marks each from remaining questions from each section A and B be asked to solve.

For 40 marks Paper:

1. Minimum eight questions
2. Four questions in each section
3. Question no 1 from section A and Question no 6 from section B be made compulsory and should cover complete syllabus of the respective section and should be set for six marks each. The Question no.1 and 6 should be of objective nature.
4. Two questions of 7 marks each from remaining questions from each section A and B be asked to solve.

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Faculty of Engineering & Technology) Syllabus of F. E. (All) Semester-I/II		
Code No.:	Title:	
Teaching Scheme:	Teachers Assessment:	
Practical/Term Work:	Credits:	
Course Objectives	:	
List of Practicals (Not Less than 10)	:	
List of Reference Books	:	
List of Equipments /Instruments	:	

The assessment of term work shall be done on the basis of the following.

Continuous assessment

Performing the experiments in the laboratory

Oral examination conducted on the syllabus and term work mentioned above

Appendix – “B”

**RULES AND REGULATIONS
FOR
BACHELOR OF TECHNOLOGY (B. TECH.) PROGRAMME
(Effective from Academic Year 2016-2017)**



**Dr. Babasaheb Ambedkar Marathwada University,
Aurangabad**

**RULES, REGULATIONS AND ORDINANCES
B. Tech. PROGRAMME**

RULES, REGULATIONS AND ORDINANCES

1. Short Title and Commencement

- i) These ordinances shall be called the Ordinances for Bachelor of Technology Programme run by the Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- ii) These ordinances shall come into force with effect from such date as approved by the authorities of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

2. Definitions

Unless the context requires otherwise,

- a) **Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the prescribed courses (core, elective or minor or soft skill courses).
- b) **Credit Point:** It is the product of grade point and number of credits for a course.
- c) **Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point
- d) **“Letter Grade”:** It is an index of the performance of students in a said course. Grades are denoted by letters A++, A+, A, B+, B, C+, C and D.
- e) **“Applicant”** shall mean an individual who applies for admission to any B. Tech. Programme.
- f) **Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.
- g) **Semester Grade Point Average (SGPA):** It is a measure of performance of work done in a semester. It is ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.
- h) **“Course”:** All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials / laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/In-Plant Training/ seminars/term papers/assignments/ presentations/ self-study/ etc. or a combination of some of these.
- i) **“Course Coordinator”** shall mean a faculty member who shall have full responsibility for the course, coordinating the work of other faculty member(s) involved in that course, including examinations and the award of grades.
- j) **“Degree”** shall mean the Bachelor’s degree viz. B. Tech. and such other degrees of the university as may be approved by the authorities concerned.
- k) **“Direct Admitted Student”** shall mean a student who is admitted directly to second year of the degree program after completion of the Diploma Course and admitted for undergraduate programme for full time study leading to B. Tech. degree.
- l) **“Programme”** means offering of the University for the Award of degree in a specific branch of study.
- m) **“Student”** shall mean a candidate admitted for an undergraduate programme for full time study leading to Bachelor’s degree.
- n) **“Scheme of Teaching and Examination”** shall mean the scheme of teaching and examination for a

programme of study as approved by the university authorities.

- o) "UG" shall mean undergraduate.
- p) **Semester:** Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from July to December and even semester from January to June.
- q) **Transcript or Grade Card or Certificate:** Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

3. Instructions

- i) Instructions about the curriculum in the various subjects in each semester of all the four years shall be provided by the University.
- ii) The details of instruction period, examination schedule, vacations etc. shall be notified by the Principal of the College as per the University academic calendar.
- iii) The medium of instruction and examination shall be English.
- iv) The minimum entry qualification and procedure for admission to UG programmes shall be as per the directives of the Govt. of Maharashtra.
- v) UG student shall be required to earn minimum number of credits through various academic courses of a curriculum as provided for in the regulation.
- vi) A UG student shall be required to complete all the requirements for the award of the Bachelor's degree within such period as may be specified in the Regulations, including those credits earned at such other institutions/courses as have been recognized by the University for this purpose.
- vii) The date of initial admission for the UG programme shall normally be the date on which the student formally registers for the first time. This date shall be treated as the date of joining the programmes for all intents and purposes.
- viii) A student shall be required normally to attend every lecture, tutorial and practical class. However, for late registration, sickness or other such exigencies, absence may be allowed as provided for in the regulations.
- ix) The procedure for the direct second year admission shall be as per the directives of the Govt. of Maharashtra.
- x) The procedure for the withdrawal from an undergraduate programme, rejoining the programme, the award of grades and the SGPA/ CGPA, the examination and all such matters as may be connected with the running of a UG programme shall be as specified in the regulations.
- xi) The award of the UG degree to an eligible candidate shall be made in accordance with the procedure laid down in the regulations.
- xii) A student admitted to the UG programme shall abide by the "Standing Orders for Students" issued by the Institute from time to time. These standing orders shall deal with the discipline of the students in the Hostels, Departments, the Institute premises and outside. The standing orders may also deal with such other matters as are considered necessary for the general conduct of the students, co-

curricular and extra-curricular activities. The Principal of the college shall approve these standing orders.

xiii) Notwithstanding anything contained in the above ordinances, no regulations shall be made in contravention of the directives of the Government of Maharashtra, in regard to the duration of the UG programme.

Regulations for the Undergraduate Programme (B. Tech.)

General

- i) These regulations shall be called the regulations for the Bachelor of Technology programmes of the university.
- ii) These regulations shall come into force from the academic year 2016-2017.

Regulation 2091

a) Undergraduate Programme

- i) The Undergraduate Programme offered shall lead to Bachelor's degree in Technology (Specialization)
- ii) The duration of UG programme leading to degree of B. Tech. is normally of four years (Eight Semesters). However, the maximum duration to complete the UG programme is eight years from the date of initial admission. The maximum duration of the programme includes the period of absence and different kinds of leaves permissible to a student but it shall exclude the period of rustication/detention of the student from the Institute.

b) Semester System

- i) The academic programmes in the Institutes affiliated to university shall be based on Semester system: two semesters (July-Nov) and (Jan-April) in a year with minimum 90 working days in each semester.
- ii) Each course shall have a certain number of credits assigned to it depending upon the academic load of the course, which would be assessed on the basis of weekly contact hours of theory lectures and laboratory classes, field study. The credits for the Project shall be assigned depending upon the quantum of work expected.
- iii) The courses offered in a semester shall be continually assessed and evaluated to judge the performance of a student.

Regulation 2092

a) Types of Courses

Courses in a programme may be of three kinds: Core, Elective and Foundation.

1. Core Course: -

There may be a Core Course in every semester. This is the course which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Elective Course:-

Elective course is a course which can be chosen from a pool of papers. It may be:

- Supportive to the discipline of study
- Providing an expanded scope
- Enabling an exposure to some other discipline/domain
- Nurturing student's proficiency/skill.

An elective may be “Generic Elective” focusing on those courses which add generic proficiency to the students. An elective may be “Discipline Centric” or may be chosen from an unrelated discipline. It may be called an “Open Elective.”

3. Foundation Course:-

The Foundation Courses may be of two kinds: Compulsory Foundation and Elective foundation. “Compulsory Foundation” courses are the courses based upon the content that leads to knowledge enhancement. They are mandatory for all disciplines. Elective Foundation courses are value-based and are aimed at man-making education.

b) Course Codes

The course offered by the Departments shall have an alphanumeric course code consisting of a string of six characters. The first three characters in a course code shall be capital letters identifying the responsible department offering the course. The next three numerical digits give the following information. The first digit specifies the year of study of the UG course. Second and third digit specifies the serial number of the Course.

Proposed Coding System of Course/Paper

Six digit code for a Course (UG courses)

1	2	3	4	5	6
Branch			Year	Course No.	
AED	1		First year UG	Semester I	
BSH	2		Second year UG	1 -20 Theory	
CED	3		Third year UG	21-30 Practical	
CSE	4		Fourth year UG	31-40 Service courses	
EED				41-49 Electives	
ETC				Semester II	
MED				51 -70 Theory	
				71-80 Practical	
				81-90 Service courses	
				91-99 Electives	

e) Course Credits

Each course shall have an integer number of credits, which reflects its weightage. The number of credits of course in a semester shall ordinarily be calculated as under:-

(a) *Lectures*: One lecture hour per week shall be assigned one credit.

(b) *Practicals*: One laboratory hour per week shall be assigned half a credit. Not more than three credits may be assigned to a practical course having only laboratory component. The courses having three hours of contact every alternate week shall have one credit only.

(c) Special courses like Project, National Cadet Corps (NCC)/National Service Scheme (NSS)/National

Sports Organization (NSO) in the UG programme shall be treated as any other course and shall be assigned such number of credits as may be approved by the authorities.

- (d) In-plant Training: A curriculum shall contain in-plant training (Off campus) in reputed industries/institute for the period specified in the scheme, generally offered in the eighth semester of fourth year of the UG programme.

Ordinance 951

Admission

- i) Admissions for first year and direct second year are strictly on the basis of guidelines and rules specified by government authorities from time to time.
- ii) Admission at the beginning of each year is compulsory for every student on the prescribed dates announced from time to time by payment of the stipulated fees till he/she completes the Programme.
- iii) Once the student is admitted to the concern college/Programme, he/she will be promoted to the next semester with full carryon.
- iv) Such students who have passed all the courses prescribed for the both semesters in the year and having no backlog courses will be eligible to admission for the next year.
- v) Such students who have earned at least 36 credits out of 54 credits in the year will be allowed for admission to next year. However these students will have to earn the credit for backlog courses on self-study basis. They can appear for improvement in supplementary examination from next semester onwards.
- vi) Such students who have failed to earn 36 credits out of 54 credits in the academic year will not be allowed for admission to next higher class. They will have to appear for improvement in their results in the Course/s failed from subsequent examination. They will be eligible for admission to higher class when credits earned by them are 36 or more.
- vii) For the admission to the third year, the student should have passed all the courses of the first year. Student must have earned 54 credits of First Year and earned minimum 36 credits out of 54 credits in second year.
- viii) For the admission to the final year, the student should have passed all the courses of the second year. Student must have earned 54 credits of Second Year and minimum 36 credits out of 54 credits in third year.
- ix) Every student shall register for the courses that he/she wants to study for earning credits and his /her name will appear in the roll list of each such course. No credit shall be given if a student attends a course for which he or she has not registered.

Dropout student will be allowed to register for respective year as and when the concerned courses are offered by the college, subject to the condition that his/her tenure should not exceed more than twice the duration of course from the date of first registration at Parent College.

The admission of student will be automatically get cancelled if he/she fails to complete the Programme in maximum period (Eight Years/ Sixteen Semesters for first year admitted students and Six years/twelve semesters for direct second year admitted students).

Regulation 2092**Monitoring Committee for Undergraduate Program**

Every undergraduate programme of the college shall be monitored by a committee constituted for this purpose by the college. The committee shall consist of Principal as a Chairman and Senior Faculty members as its members.

Change of Branch (Specialization)

As per the rules and regulations specified by competent authority from time to time.

Termination of Enrolment on Academic Grounds

The enrolment of a student may be terminated on disciplinary grounds, in accordance with the Standing Orders of the competent authority.

Ordinance 952**Attendance, Absence, Leave Rules and Dismissals**

- i) An undergraduate student must have a minimum attendance of 90 % of the total number of classes including lectures, tutorials and practical, before the corresponding examination i.e. End Semester Examination, in order to be eligible to appear for the respective examination in the course, failing which the student will be detained in the said course and has to re-admit for semester/year.
 - a. In special cases and for sufficient causes shown, the Principal of the college may, on the specific recommendation of the Course coordinator/Head of the Department, condone the deficiency in attendance to the extent of 15 % on medical ground subject to submission of medical certificate.
 - b. However, in respect of women candidates who seek condonation of attendance due to pregnancy, the Principal of the college may condone the deficiency in attendance to the extent of 25 % (as against 15 % Condonation for other) on medical grounds subject to submission of medical certificate to this effect. Such condonation shall not be availed twice during the Programme of study.
- ii) Active Participation in N.C.C/N.S.S. Camps or Inter collegiate or Inter University or Inter State or International matches or debates of Educational Excursions or such other Inter University activities as approved by the authorities involving journeys outside the city in which the college is situated will not be counted as absence. However, such 'absence shall not exceed (4) weeks per semester of the total period of instructions. Such leave should not be availed more than twice during the entire Programme of study.
- iii) The attendance shall be calculated on the aggregate of the papers/subjects from the date of commencement of the semester.
- iv) In case of the candidates who fail to put in the required attendance in a Programme of study, he/she shall be detained in the same class and will not be recommended to appear for the University examination.
- v) A candidate detained in Semester I should take readmission in next academic year as a regular student and shall have to complete all the theory and practicals as a regular student.
- vi) In case a candidate is detained in semester II, he/she should take admission to Semester II of next academic year and complete all the theory and practicals as a regular student of semester II.
- vii) In case of change of syllabus the candidate even if detained in semester II should take readmission in next

academic year for Semester I and II as a regular student and complete all the theory and practicals as a regular student.

- viii) If student is found guilty of malpractice in examinations, involvement in ragging and overall misconduct during his/her stay in the institute, he/she will be punished as per the rules of the University/the Government of Maharashtra.

Regulation 2093

a) Rules for Examination

- i) Application for permission to appear at every examination shall be made in the prescribed format accompanied by one passport size full face photograph (not profile) along with the necessary certificates and the prescribed fee, should be submitted to the Principal of the institute on or before the date fixed for this purpose.
- ii) When a candidate's application is found in order and he/she is eligible to appear at an Examination, the Principal of the institute is empowered to furnish him/her with a Hall-Ticket with the photograph affixed to it, enabling the candidate to appear in the Examination, and this Hall- Ticket shall have to be produced by the Candidate before he/she is admitted to the premises where the Examination is being held.
- iii) A Candidate who does not present himself/herself for the examination for any reason whatsoever, excepting shortage of attendance, shall not be entitled to claim refund of the whole or part of the examination fee, for subsequent Examination(s).
- iv) As engineering is a full time Programme, no candidate shall be allowed to put in attendance for a Programme or appear at examinations for different degrees and different faculties at one and the same time.
- v) Students who have appeared once at any examination of the course need not put in fresh attendance, if they wish to reappear at the corresponding examination, notwithstanding the fact that the College may have introduced new course. They will, however, have to appear at the examinations according to the scheme of examination and syllabi in force.
- vi) If a student fails or is absent in the End Semester Examination (ESE) of a course, he/she may appear for supplementary examination. Such supplementary examination shall be held along with next semester examination.

b) Examination Scheme

- i) A student shall be evaluated for his/her academic performance in a course through tutorials, practicals, homework assignments, term papers, field work, seminars, quizzes, Test Examinations, and the End-Semester Examination as applicable according to the guidelines formulated for this purpose.
- ii) There would be at least two class test, out of which one may be online test examination during the semester. The weightage of the class test for the course having ESE of 80 marks will be of 20 marks and the course having ESE of 40 marks will be of 10 marks (1-Hour duration) in every theory course. The class test performance shall be considered as an average of two class tests.
- iii) At the end of the semester, there would be an End Semester Examination as per syllabus. For the examination of First Year for the academic year 2016-2017, the minimum percentage for passing for each course code, term work, practical examination and ESE is 40 %, failing which he/she will get D grade for

that course code. This rule will be progressively applicable for higher classes in next consecutive years.

- iv) The project work shall be evaluated by midterm seminar(s), quality of work carried out, project report submission and the viva-voce examinations.
- v) In-Plant Training work shall be evaluated from time to time through seminar(s), quality of work carried out, In-Plant report submission and the viva-voce examinations.
- vi) Rule for combined passing:
 1. To pass the examination a candidate must obtain minimum 40% of Marks in each End Semester Examination & class test taken together, however the candidate must obtain minimum 35% of Marks in the End Semester Examination.
 2. To pass a Course where there is no provision of class test, the candidate must obtain 40% of Marks in the End Semester Examination.
 3. Minimum two-class tests should be conducted in semester for a Course, if provided. The average performance out of the Two-class test should be forwarded to the Controller of Examinations.
 4. If the candidate remains absent for the class-test, his performance should be treated as 'Zero' Marks.

Regulation 2094

The Grading System

For every course taken by a student, he/she is assigned a grade based on his/her combined performance in all the assessments including laboratory or any other assignment. The grade indicates a qualitative assessment of the student's performance and is associated with equivalent number called a grade point.

The academic performance shall be graded on a ten-point scale following guidelines given in Appendix-A. The letter grades and their equivalent grade points are listed in the Appendix-A.

The letter Grades (up to D only) awarded to a student in all the courses shall be converted into a semester and cumulative performance index called the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA), to be calculated by following the procedures given in Appendix-B.

Ordinance 953

Scrutiny of Grades

A student may apply for scrutiny of grades to the Controller of Examinations (COE), by paying the specified fees, within seven days from the date of scheduled display of grades. The Faculty Coordinator / Dean will communicate the panel of experts to the Controller of Examinations for checking the entry of the weightage from different components of evaluation and their addition, the addition of marks in the final answer scripts and unchecked questions, etc., if any. Based on recommendations by panel, the Director of evaluation will take appropriate steps for further evaluation of grades/marks. The results of scrutiny may lead to either a change in grade due to error(s) in any of the aspects scrutinized by the committee or the grade may remain unchanged, COE will display the results. In the event of no change in the grade after revaluation, it shall be declared as "No Change".

Regulation 2095**CGPA for Direct Second Year admitted students**

In case of the students directly admitted to second year through direct second year admission process, the CGPA shall be calculated on basis of his/her performance in three years (Six Semester) i.e. second year, third year and final year.

Regulation 2096**Conversion of Percentage system students into CGPA**

In case of students who have completed earlier classes in percentage system and shall be taking admission in CGPA system from second year onwards for them the marks obtained in previous examination/s conducted in percentage system will be converted into SGPA for respective years on completion of all courses of that year ($\% \text{ Score divided by } 10$). This converted SGPA shall be used for calculating CGPA of the student.

Regulation 2097**Minimum Students Requirement for an Elective Course**

An elective course in a department shall run only if minimum 15 students from the sanctioned intake registers for it in a regular semester. However, under special circumstances, a course may run with fewer students with prior permission of the Principal of the college.

Ordinance 954**a) Minimum Requirements for the Award of the Degree**

- i) The minimum total no. of credits requirement for each programme is 216.
- ii) The minimum total no. of credits requirement for each programme is 162 for Direct Second Year admitted students.
- iii) The student should have taken and passed all the prescribed courses under the general institutional and departmental requirements and the student should have paid all the dues.
- iv) The student should have satisfactorily fulfilled other academic requirements like visits, seminar and the project and the student should have no case of indiscipline pending against him/her.
- v) The credits for the courses in which a student has obtained "C" (minimum passing grade for a course) grade or higher shall be counted as credits earned by him/her.

b) Maximum Period for Completion of Programme

In any case, a student should fulfill the requirements for his/her respective degree within the maximum period specified for each degree as given below.

B. Tech. Programme (4 years): Eight years

B. Tech. Programme (for direct admitted students to second year): Six years

Regulation 2098

a) Interpretation of Regulations

In case of any dispute, difference of opinion in interpretation of these regulations or any other matter not covered in these regulations, the decision of the Vice-Chancellor shall be final and binding.

b) Discretionary Powers

Notwithstanding anything contained in the above regulations or in any extraordinary situations as the Programme Head and/or Dean think necessary, Principal of the institute may take action on behalf of the university as he/she feels appropriate and report it to the Vice-Chancellor of the university.

APPENDIX - A**Regulation 2099****Structure for Grading of Academic Performance**

Grade	Grade points	Range of Marks	Grade Description
A++	10	86-100	Outstanding
A ⁺	9	76-85	Excellent
A	8	66-75	Very Good
B ⁺	7	61-65	Good
B	6	56-60	Fair
C ⁺	5	51-55	Average
C	4	40-50	Below Average
D	0	Below	Fail

[For securing minimum grade of passing for a course code, student must get minimum 40 % marks in that course code. Additionally for securing minimum grade of passing for a course code having theory paper of ESE, student must get minimum 35 % marks (in case of fraction rounding of marks will be on higher side) in theory paper of ESE of that course code.]

APPENDIX - B**Ordinance 955****Performance Indices**

- (i) **Calculation of Semester Grade Point Average (SGPA)** The performance of a student in a semester is indicated by a number called SGPA. The SGPA is the weighted average of the grade points obtained in all the courses registered by the student during the semester.

$$SGPA = \frac{\sum_{i=1}^n C_i P_i}{\sum_{i=1}^n C_i}$$

Where,

C_i = The number of credits assigned in the i^{th} course of a semester for which SGPA is to be calculated

P_i = Grade point earned in the i^{th} course.

$i = 1, 2, \dots, n$ represent the number of courses in which a student is registered in the concerned semester

The SGPA is calculated to two decimal places.

- (ii) **Calculation of Cumulative Grade Point Average (CGPA)**

An up to date assessment of the overall performance of a student from the time of his first registration is obtained by calculating a number called CGPA, which is weighted average of the grade points obtained in all the courses registered by the student since he/she entered the Institute.

$$CGPA = \frac{\sum_{j=1}^n C_j P_j}{\sum_{j=1}^n C_j}$$

Where,

C_j = The number of credits earned in the j^{th} course up to the semester for which CGPA is to be calculated

P_j = Grade point earned in the j^{th} course.

$j = 1, 2, \dots, m$ represent the number of courses in which a student is registered up to the semester for which the CGPA is to be calculated

The CGPA is also calculated to two decimal places.

Ordinance 956**Guidelines for the Award of Grades**

The following are the general guidelines for the award of grades:

- i) For each student, all evaluations in different components of a course shall be done in absolute marks

considering the weightage in the scheme.

- ii) The marks of various components shall be added to get total marks secured.
- iii) As per the CGPA, absolute grading for the students of each class of different programme will be made on 10-point scale. The student securing maximum CGPA will get 10 points. This absolute grading will be allotted for those students who have passed all the courses prescribed for the both semester in the year and having no backlog courses.
- iv) The CGPA and percentage equivalence of grade points of the 10 point scale for the course of study shall be as given in Appendix C.
- v) The punishment to the student for adopting unfair means at the examination shall be as mentioned in Appendix D.

APPENDIX - C**Regulation 2100****a) Equivalence of CGPA and Class**

The percentage equivalence of grade points for the ten points scale will be as below.

Class	Range
First Division with Distinction	$CGPA \geq 7.0$
First Division	$7.0 > CGPA \geq 6.0$
Second Division	$6.0 > CGPA \geq 5.0$
Pass Class	$CGPA < 5.0$

b) Percentage Equivalence of CGPA

Wherever necessary the Grade Point Average can be converted to percentage of marks.

$$\text{Percentage of Marks} = CGPA \times 10$$

APPENDIX - D

Regulation 2101

Unfair Means Committed by the Student

1. The Board of Examinations shall be the competent authority to take disciplinary action against a student for his misconduct due to his unfair means committed by him at the examination conducted by the University.
2. The Principal of the college shall be the competent authority to take disciplinary action against a student for his misconduct due to his unfair means committed by him at the examination conducted by the University, recognized Institution of behalf of the University.
3. Definition- Unless the context otherwise requires
 - (a) Student means and includes a person who is enrolled as such by the University/college/Institution for receiving instruction qualifying for any degree, diploma or certificate awarded by the University. It includes ex-student and student registered as candidate (examinee) for any of the Degree, Diploma or Certificate examinations.
 - (b) Unfair Means includes one or more of the following acts or omissions on the part of student/s during the examination period.
 - i. Possessing unfair means material and or copying there from.
 - ii. Transcribing any unauthorized material or any other use thereof.
 - iii. Intimidating or using abusive language or threatening or use of violence against invigilator or person on duty for the conduct of examination or man-handling him/her or leaving the examination hall without permission of the supervisor or causing disturbances in any manner in the examination proceedings.
 - iv. Unauthorized communicating with other examinees or anyone else inside or outside the examination hall.
 - v. Mutual/Mass copying
 - vi. Smuggling out, either blank or written or smuggling in of answer books as copying material.
 - vii. Smuggling in blank or written answer book forging and forging signature of the Jr. Supervisor therein.
 - viii. Smuggling in blank or written answer book forging and forging signature of the Jr. Supervisor therein.
 - ix. Interfering with or counterfeiting of University/College Institution seal or answer books or office stationary used in the examination.
 - x. Impersonation at the University/college/Institution examination.
 - xi. Revealing identity in any form in the answer written or in any other part of the answer book by the student at the University or College or Institution examination.
 - xii. Or any other similar act/s omission/s which may be considered as unfair means by the competent authority.
 - (c) "Unfair means relating to examination" means and includes directly or indirectly communicating or attempting to commit or threatening to commit any act or coercion, undue influence or fraud or

malpractice with a view to obtaining wrongful gain to him or to any other person or causing wrongful loss to other person/s.

- (d) "Unfair means material" means and includes any material whatsoever, related to the Course of the examination, printed, typed, handwritten or otherwise on the person or on clothes, or body of the student (examinee) or on wood or other material, in any manner or in the form of chart, diagram, map or drawing or electronic aid etc. which is not allowed in the examination hall.
- (e) "Possession of unfair means material by a student" means having any unauthorized material on his/her person or desk or chair or table or at any place within his/ her reach, in the examination centre and its environs or premises at any time from the commencement of the examination till its conclusion.
- (f) " Student found in possession" means a student reported in writing as having been found in possession of unfair means material by Jr. Supervisor, Sr. Supervisor, member of the Vigilance committee or Examination squad or any other person authorized for this purpose in this behalf, even if the unfair means material is not produced as evidence because of its being reported as swallowed or destroyed or snatched away or otherwise taken away or spoiled by the student or by any other person acting on his behalf to such an extent that it has become illegible. Provided that report to that effect is submitted by the Sr. Supervisor of chief Conductor or any other authorized person to the Controller of Examinations, Principal of the college concerned or any officer authorized in this behalf.
- (g) Material related to the Course of Examination means and includes, if the material is produced as evidence any material certified as related to the Course of examination by a competent person and if the material is not produced as evidence or has become illegible for any of the reasons referred to in clause (f) above, the presumption shall be that the material did relate to the Course of the examination.
- (h) "Chief Conductor", means and includes Principal of the college concerned where concerned examination is being conducted and any other person duly authorized by him or person appointed as In charge of examination, by the authority competent to make appointment to such post.
4. Where the examination of the University courses are conducted by the constituent college/recognized Institute on behalf of the University, the Principal of the college on receipt of a report regarding use of unfair means by any student at any such examination including breach of the rules laid down by the Management council or by the College/recognized institution for proper conduct of examination, shall have power at any time to institute inquiry and to punish such unfair means or breach of any of the rules by exclusion of such a student from any such examination or any University course in any college/Institution either permanently or for a specified period or by cancellation of the result of the student in the college/recognized Institution examination for which he/she appeared or by deprivation of any college/Institution scholarship or by cancellation of the award of any college/Institution prize or medal to him/her or by imposition of fine not exceeding Rs.300/- or in any two or more of the aforesaid ways.
5. During examination, examinees and other students shall be under disciplinary control of the Chief Conductors.

6. Chief conductor/s of the examination centre shall in the case of unfair means, follow the procedure as under:-
- a) The student shall be called upon to surrender to the Chief Conductor, the unfair means material found in his or her possession, if any, and his/her answer-book.
 - b) Signature of the concerned student shall be obtained on the relevant materials and list thereon. Concerned Senior Supervisor and the Chief Conductor shall also sign on all the relevant materials and documents.
 - c) Statement of the student and his undertaking in the prescribed format and the statement of the concerned Jr. Supervisor and Sr. Supervisor shall be recorded in writing by the Chief Conductor (Appendix-III). If the student refuses to make statement or to give undertaking the concerned Sr. Supervisor and / or Chief Conductor shall record accordingly under their signature.
 - d) Chief Conductor shall take one or more of the following decisions depending upon seriousness/gravity of the case:-
 - i) In the case of impersonation of violence, expel the concerned student from the examination and not allow him/her to appear for remaining examination.
 - ii) Obtain undertaking from the student to the effect that the decision of the concerned competent authority in his/her case shall be final and binding and allow him/ her to continue with his/ her examination.
 - iii) May report the case to the concerned Police Station as per the provision of Maharashtra Act No. XXXI 1982 – An act to provide for preventing Malpractice's at University Board and other specified examinations (Appendix-III) Proforma A & B.
 - iv) Confiscate his / her answer books mark it as suspected unfair means case and issue him/her fresh answer books duly marked.
 - v) All the material and list of material mentioned in sub-clause (a) and the undertaking with the statement of the student and that of the Jr. Supervisor as mentioned in clause no. (b) & (c) and the answer-book/s shall be forwarded by the Chief conductor along with his report to the concerned Controller of Examinations/ Principal of the college, as the case may be, in a separate and confidential sealed envelope marked "suspected unfair means case"
 - vi) In case of unfair means of oral type, the Jr. Supervisor and the Sr. Supervisor or concerned authorized person shall record the facts in writing and shall report the same to the concerned Controller of Examinations/ Principal of the college, as the case may be.

b) The broad categories of unfair means adopted by students at the University/ College/ Institution examination and the quantum of punishment for each category thereof.

Sr. No.	Nature of Malpractices	Quantum of Punishment
1.	Possession of copying material	Annulment of the performance of the student/s at the University/ College/ Institution Examination in full:- (Note: - This quantum of punishment Shall apply also of the following categories of malpractices at Sr. No. 2, to Sr. No.12 in addition to the Punishment prescribed thereat)
2.	Actual copying from the copying material.	Exclusion of the student from university or College or Institution examination for one additional examination.
3.	Possession of another students Answer Book	Exclusion of the student from University or College or Institution examination for one additional examination (Both the students)
4.	Possession of another students Answer book+ actual evidence of Copying	Exclusion of the student from University or College or Institution examination for two additional examination (Both the Students)
5.	Mutual / Mass copying.	Exclusion of the student from University or College or Institution examination for two additional examinations.
6. (a)	Smuggling out or smuggling in of Answer book as copying material.	Exclusion of the student from University or College or Institution examination for two additional examinations.
6. (b)	Smuggling in of written answer book based on the question paper set at the examination	Exclusion of the student from University or College or Institution. Examination for three additional examinations.
7.	Attempt to forge the signature of the Jr. Supervisor on the answer book or Supplement.	Exclusion of the student from the University or College or Institution examination for four additional examinations.
8.	Interfering with or counterfeiting of University / College/ Institution seal or Answer books. Or office stationary used in the examination	Exclusion of the student from University or College or Institution examination for four additional examinations.
9.	Answer book main or supplement written Outside the examination hall or any other insertion in answer book.	Exclusion of the student from University or College or Institution examination for four additional examinations.

10.	Insertion of currency notes/to bribe or attempting to bribe any of the persons/s connected with the conduct of Examination	Exclusion of the student from University or College or Institution Examination for four additional examinations. (Note:- This money shall be crated to the Vice-Chancellor's Fund
11.	Using obscene language/violence/ threat at the examination Centre by a student at the University/ College / Institution Examination to Jr./ Sr. Supervisor/ Chief Conductor or Examiners.	Exclusion of the student from University or College or Institution examination for four additional Examinations.
12.(a)	Impersonation at the University/ College / Institution examination	Exclusion of the Student from University or College or Institution examination for five additional examinations, (Both the students if impersonator is University or College or Institute student)
12.(b)	Impersonation by a University/ College/ Institute student at S.S.C./ H.S.C./ any other Examinations.	Exclusion of the Student from University or College or Institution examination for
13.	Revealing identity in any form in the answer written or in any other part of the Answer book by the student at the University or College or Institution Examination	Annulment of the performance of the student at the University or College or Institution Examination in full.
14.	Student found having written on palms or on the Body, or on the clothes while in the Examination	Annulment of the performance of the student at University or College or Institution Examination in full.
15.	All other mal-practices not covered in the aforesaid categories.	Annulment of the performance of the student at the University or college or Institution Examination in full and severe punishment depending upon the gravity or the offence.
16.	If on previous occasion a disciplinary action was taken against a student for malpractice used at examination and he/she is caught 'again for malpractices used at the examinations, in this event he/she shall be dealt with severely. Enhanced punishment can be imposed on such student. This enhanced punishment may extend to double the punishment provided for the offence when committed at the second or subsequent examination.	

PRACTICAL/DISSERTATION/PROJECT REPORT EXAMS.	
17.	Student involved in malpractices at practical/ dissertation/ project report examination shall be dealt with as per the punishment provided for the theory examination.
18.	The competent authority in addition to the above mentioned punishments may impose a fine not exceeding Rs. 300/- on the student declared guilty.
	Note: - The term annulment of performance in full' includes performance of the student of the theory as well as annual practical examination, but does not include performance at term work, project work and dissertation examination unless malpractice used thereat.

Instructions for preparing detailed syllabus

- The entire syllabus for 80 marks theory paper should be divided in six units
- The entire syllabus for 40 marks theory paper should be divided in six units
- The syllabus is to be submitted in the format enclosed herewith
- Wherever required the treatment expected either mathematical/theoretical needs to be mentioned
- The total syllabus needs to be of 48 hours teaching for 80 marks theory paper
- The total syllabus needs to be of 24 hours teaching for 40 marks theory paper
- At the end of the syllabus pattern of the question paper as given herewith needs to be mentioned

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Faculty of Engineering & Technology) Syllabus of F. E. (All) Semester-I/II		
Code No.:		Title:
Teaching Scheme:		Class Test:
Theory:		Theory Examination (Duration):
Tutorial:		Theory Examination (Marks):
Credits:		
Objectives	:	
Unit-I	:	
Unit-II	:	
Unit-III	:	
Unit-IV	:	
Unit-V	:	
Unit-VI	:	
Reference Books:	:	
Additional Reference Books	:	

Section A: Includes Unit I, II and III; **Section B:** Includes Unit IV, V and VI.

All units carry equal weightage

Pattern of Question Paper:

The six/four units in the syllabus shall be divided in two equal parts i.e. 3 units respectively. Question paper shall be set having two sections A and B. Section A questions shall be set on first part and Section B questions on second part. Question paper should cover the entire syllabus.

For 80 marks Paper:

1. Minimum ten questions
2. Five questions in each section
3. Question no 1 from section A and Question no 6 from section B be made compulsory and should cover complete syllabus of the respective section and should be set for ten marks each. The Question no.1 and 6 should be of objective nature.
4. Two questions of 15 marks each from remaining questions from each section A and B be asked to solve.

For 40 marks Paper:

1. Minimum eight questions
2. Four questions in each section
3. Question no 1 from section A and Question no 6 from section B be made compulsory and should cover complete syllabus of the respective section and should be set for six marks each. The Question no.1 and 6 should be of objective nature.
4. Two questions of 7 marks each from remaining questions from each section A and B be asked to solve.

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Faculty of Engineering & Technology) Syllabus of F. E. (All) Semester-I/II		
Code No.:		Title:
Teaching Scheme:		Teachers Assessment:
Practical/Term Work:		Credits:
Course Objectives	:	
List of Practicals (Not Less than 10)	:	
List of Reference Books	:	
List of Equipments /Instruments	:	

The assessment of term work shall be done on the basis of the following.

Continuous assessment

Performing the experiments in the laboratory

Oral examination conducted on the syllabus and term work mentioned above