GONDWANA UNIVERSITY, GADCHIROLI.

ORDINANCE NO. 121 OF 2017

EXAMINATIONS LEADING TO THE DEGREE OF (विज्ञान स्नातक) BACHELOR OF SCIENCE (B.SC.) (SIX SEMESTER DEGREE COURSE) BASED ON CHOICE BASED CREDIT SYSTEM (CBCS) IN THE FACULTY OF SCIENCE AND TECHNOLOGY ORDINANCE, 2017.

Whereas, it is expedient to provide an ordinance in respect of Examinations leading to the Degree of (विज्ञान स्नातक) Bachelor of Science (B.Sc.) (Six Semester Degree Course) based on Choice Based Credit System (CBCS) in the faculty of Science and Technology, for the purposes hereinafter appearing, the Management Council is hereby pleased to make the following Ordinance :-

1. This Ordinance shall be called "Examinations leading to the Degree of (विज्ञान स्नातक) Bachelor of Science (B.Sc.) (Six Semester Degree Course) based on Choice Based Credit System (CBCS) in the faculty of Science and Technology, Ordinance, 2017."
2. This Ordinance shall come into force with effect from the date of its making by the Management Council.
3. **Need for academic reforms in Indian Higher Education :**

   a) In the knowledge based society, quality of higher education is of prime importance. There are many concerns about the quality of education imported to the learners and its overall impact on the development of the nation. In the existing system lack of flexibility in the curriculum and absence of comprehensive national framework for facilitating mutual give & take of the academic programs offered by different higher education providers is the main lacuna. It is the need of time to give serious re-look at the existing systems & introduce reforms wherever possible.

   b) Recommendations of National Regulating authority:
   The University Grants commission(UGC)NAAC, Distance Education council(DEC) & National knowledge commission(NKC) have suggested the recommendations to improve upon the quality & effectiveness of higher education in the country. It is the need to develop a choice Based credit system(CBCS) in tune with global trends & adaption of grading system for learner performance. Today, there is a need for fully convertible credit based system, acceptable to other universities.
   All the major higher education providers across the globe are operating the systems of credits.

   c) The concept of CBCS in brief :CBCS essentially redefines the curriculum into smaller measurable entities of modules/units with the hours required for studying/learning. The

mechanism is to be developed to combine these modules in different ways so as to quality for a given Programme. The learner is at the center of all academic transactions.

d) Need for Introduction of CBCS : The features highlighted by UGC are: Enhanced learning opportunities, ability to match learners' scholastic needs and aspirations, inter university transferability of learners (after completion of semester) allows part completion of an academic Programme in the Institution of enrolment & part completion in other (recognized) institution. This scheme provides improvement in educational quality and excellence, flexibility for working learners to complete the programme over an extended period of time, standardization and compatibility of educational programmes across the country.

e) Advantages of Credit System:

- Shift in focus from teacher-centric to student- centric education, since the workload is calculated on the time spent in learning, and not in teaching.
- Helps to record work and document learner workload.
- Helps self-paced learning.
- Allows more flexibility to the learners to choose the programs.
- Respects "Learner Autonomy". Allows learns to choose according to their own learning needs, interests and aptitudes.
- Makes education more broad-based. One can take credits by combing unique combinations.
- Facilitates learner mobility. Offers the opportunity to sliding at different times and in different institutions. Credits earned at one institution can be transferred to another.
- Is beneficial for achieving more transparency and compatibility between different educational structures.
- A credit system can facilitate recognition procedures as well as access to higher education for non-traditional leaners.

f) Scientific approach to implementation:

To implement the credit system, a scientific approach has to be adopted for the benefit of the learner.

4. In this Ordinance, unless the context otherwise requires:-

1) Academic Year : Two consecutive (one odd + one even) semester constitutes one Academic year.

2) Choice Based Credit Systems (CBCS) : The CBCS provides choice for students to

select from the prescribed courses (core, elective or soft skill courses).

3) **Course -** A course is essentially a constituent of a ***Programme.*** The course should define learning objectives and learning outcome. A course may be designed to comprise lectures / tutorials / laboratory work/ field work/ outreach activities/ project work/ seminars / term papers/ assignments/presentations / self-study etc. or a combination of some of these.

4) **Credit –** A unit by which the course work is measured. It determines the Number of hours of Instructions required per week. One credit is equivalent to minimum of 30 to 40 hours of learning.

5) **Credit point –** It is the product of grade points & number of credits for a course.

6) **Grade point –** It is numerical weight allotted in each letter grade on 10 point scale.

7) **Letter grade –** It is an index of performance of students in a said course. Grades are denoted by letters.

5. (i) The following shall be the examination leading to the Degree of Bachelor of Science in the Faculty of Science and Technology.

a. विज्ञान स्नातक B.Sc Part-I, (semester I and II examinations.)
b. विज्ञान स्नातक B.Sc. Part II, semester III and IV examinations); and
c. विज्ञान स्नातक B.Sc. Part III, semester V and VI examinations.)

(ii) The Duration of the program: The duration of undergraduate (U.G.) program (B.Sc.) in the Faculty of Science and Technology shall be of three Academic years consisting of six semesters.

6. Admission and Eligibility criteria: Subject to their compliance with the provisions of this Ordinance and of other ordinance in force from time to time, an applicant for admission to semester I of CBCS, B.Sc. I, must have passed higher secondary (10+ 2) or an equivalent course recognized from M.S. Board/ CBSE/or recognized body.

7. (I) The student passing H.S.C examination with Physics, Chemistry and Mathematics shall offer the following subjects at B.Sc. I examination.

i) Ability Enhancement Compulsory Course: English and any one of the following languages Marathi, Hindi, and supplementary English.

ii) Three core subjects from the following subjects available in the university- Physics, Chemistry, Electronics, Mathematics, Computer Science, Geology .

(II) The student passing H.S.S. Examination with Chemistry and Biology shall offer following subjects:

i) Ability Enhancement Compulsory Course: English and any one of the following languages :- Marathi, Hindi, and supplementary English.

ii) Three core subjects from the following subjects available in the university :- Botany, Zoology, Biochemistry, Environmental Science, Microbiology, Biotechnology, Industrial fish and fisheries and Geology.

(III) The students passing H.S.C. examination (M.C.V.C. stream) with technical trades shall be eligible for the admission to CBCS, semester pattern B.Sc. I course as follow:

i) Paramedical/Agricultural/Fisheries group :- can take any allowed combination of three from the following subjects :- Zoology, Botany, Microbiology. Biochemistry, Biotechnology, Environmental science, Industrial fish and fisheries, Chemistry, Geology.

ii) Engineering and technology, Computer Science group :- can take any allowed combination of three from the following :- Physics, Chemistry, Computer Science, Mathematics and Electronics, Geology

8. Every examinee for the B.Sc. Part I (Semester I &II) Examinations shall be examined in:
- **a)** AECC-English
- **b)** AECC-Any one of the following languages: Marathi, Hindi, Supplementary English
- **c)** Any one combination allowed/available at the concerned college or Institute as shown in **Appendix E.**

9. In the case of B.Sc. Part-II, (Sem. III & IV Examinations) **: -** The student shall have passed not less than one academic year previously the (B.Sc. Part-I, Sem. I & II Examinations) of the University or an examination recognized as equivalent thereto, and

10. In the case of the B.Sc. Final, (Sem. V & VI Examinations) **:-** The student shall have passed not less than one Academic year previously the (B.Sc. Part-II) (Sem. III & IV) Examinations of the University or an examination recognized as equivalent thereto:

11. Norms of A.T.K.T:---

The admission to the program shall be subjected to ATKT rules as given below:

a) A student shall be allowed to keep term for semester II irrespective of grades obtained in each course of semester I

b) A student shall be allowed to keep term for semester III if he/she passes (grade E or above in each course) each of semester I & semester II **Or** He/ She passes two courses in each semester.

c) A student shall be allowed to keep term for semester IV irrespective of grades obtained in each course of semester III & can appear for Semester IV examination.

d) A student shall be allowed to keep term for semester V, if he / She passes semester I,II, III & IV. **Or** He / She has passed Semester I & Semester II and Pass in at least 2 courses each of Semester III & IV .

e) A student shall be allowed to keep term for Sem VI irrespective of grades obtained in each course of Semester V.

There will be supplementary examination conducted for external evaluation (Semester end) by the university.

12. There shall be total six semester, in U.G. level B.Sc. program
13. Each semester shall comprise minimum 90 (Ninety) actual teaching days.
14. Every subject (Except languages and Mathematics) in each semester will comprises of –
a) Two theory papers – 50 marks each
b) One internal assessment, based on two theory papers – 10 marks each.
c) One practical/Laboratory work- Total 30 marks

15. For Mathematics-
a) Two theory papers- 60 marks each
b) One internal assessment based on two theory papers for 15 marks each

16. In addition to above, Semester I & II will have
a) One AECC English paper of 80 marks and 20 marks for internal assessment.
b) One second language paper of 80 marks and 20 marks for internal assessment.
17. All theory papers shall be divided into four units.
18. The scope and limitations of the subjects of all semester opted by the students shall be indicated in the respective syllabi from time to time. The medium of instruction and examination shall be English, except for the courses in languages.
19. The fees for the tuition, examination, Laboratory and other fees shall be as prescribed by the University from time to time.
20. The theory question paper will be as per CBCS examination pattern as decided by respective B.O.S.
21. All theory examinations shall be conducted by Gondwana University Gadchiroli at the end of each Semester.
22. Practical examination for all odd semesters shall be conducted at the college level and all even semester, by Gondwana University, Gadchiroli.
23. Duration of practical examinations shall be 6 to 8 hrs, for one or two day, depending upon subject and number of students.
24. The number of papers, practicals, teaching hours, the maximum marks allotted and minimum marks which an examinee must obtain in order to pass the examination, all details are shown in Appendices **A, B1 & B2** appended to this Ordinance.
25. The scheme of awarding marks for internal assessment with every detail shall be as per appendix **C** appended with this Ordinance.
26. Notwithstanding anything to the contrary of this Ordinance, no candidates shall be admitted to B.Sc. part I, (semester I and II), B.Sc. II- (Sem. III and IV) and B.Sc. final

(semester V and VI) examinations under this Direction, if he/she has already passed the corresponding or an equivalent examination of any other statutory University.

27. As soon as possible after the examinations the Board of Examination shall publish a list of successful examinees at the B.Sc. Part-I, (Sem. I &II) B.Sc. Part-II, (Sem. III & IV) and B.Sc. Final (Sem. V & VI) Examinations. The result of all examinations shall be classified on the basis of semester Grade point Average 'SGPA' evaluated as specified in the adopted model CBCS (Appendix **D**).

28. The examinees who have secured pass grade in all subjects prescribed for all the examinations shall be eligible for the award of Degree of Bachelor of Science. The classification of division of examinees for the award of Degree of Bachelor of Science shall be on the basis of Cumulative Grade Point Average 'CGPA' evaluated by accounting SGPA of all semesters as demonstrated in the Appendix **D.**

29. Successful Examinees at the final examination shall be on payment of the prescribed fees, will be entitled for the award of the degree in the prescribed form signed by the Vice Chancellor.

30. Absorption scheme to switch over from yearly to semester pattern
(From other University to Gondwana University)

a) The candidates who have cleared first year annual pattern examination in the subject shall get admission to third semester directly by matchable scheme. However, candidates who are allowed to keep term will not be eligible for admission to third semester unless they clear all the papers and practicals of first year annual pattern examination.

b) Admission to 5^{th} semester, student should clear second year annual pattern examination in all subjects.

(Statement of object and reasons)

Hon'ble Vice-Chancellor of the university has issued Direction No. 29 of 2017 Examinations leading to the Degree of (विज्ञान स्नातक) Bachelor of Science (B.Sc.) (Six Semester Degree Course) based on Choice Based Credit System (CBCS) in the faculty of Science and Technology, Direction, 2017 under provision of sub- section (8) of section 12 of the Maharashtra Public Universities Act, 2016 date 22/08/2017.

The above mentioned Direction was required to converted into an Ordinance within a period of six months as provided under the proviso of sub-section (8) of section 12 of the Maharashtra Public Universities Act, 2016.

For converting Direction No. 29 of 2017 into an Ordinance this Draft ordinance is prepared for its consideration and onwards recommendation to the Management Council by the Academic Council.

Appendix-A

Bachelor of Science

Teaching and Examination scheme

Three year (Six SEMESTERS) CBCS Degree Programme

B.Sc. I (Semester I and II)

Sr.No	Subjects	Teaching scheme				Examination Scheme										
						Theory							Practical			
		Th+Tu Periods	Pr(Periods)	Total periods	Credits	Duration Hrs.	Max.mark Th paper	Min Passing Marks Th	Max marks IA	Min.passing IA	Total	Min. passing Marks	Duration hrs.	Max. mark practical	Min.passing marks	Total marks
1.	AECC-English	4	--	4	4	3	80	32	20	08	100	40	--	--	--	100
2.	AECC-Second Language	3	--	3	4	3	80	32	20	08	100	40	--	--	--	100
3.	Science Core I Paper I,II and Practical, excluding Mathematics	3+ @	--	6+ @	6	3	40	40	10	08	120	48	--	--	--	150
4.	Science Core II, Paper I,II and Practical, excluding Mathematics	3+ @	--		6	3	40		10				--	--	--	
5.	Science Core III, Paper I,II and Practical, excluding Mathematics For Core III Mathematics refer to row No 6&7.	--	--	6	6	--	--	--	--	--	--	--	6 – 8*	30	11	
6.	Mathematics (Paper I)	4+1	--	8+ 2	3	3	60	48	15	12	150	60	--	--	--	150
7.	Mathematics (Paper II)	4+1	--		3	3	60		15				--	--	--	

Note: Th=theory, Pr=practical, Tu=tutorial, IA=Internal Assessment, @ = Tutorials wherever applicable, * = If required for two days.

Minimum marks for passing will be 40% of the total marks allotted to theory and internal assessment together. A candidate has to pass in practical separately. Provided the candidate has appeared in all the papers of concerned subjects.

Appendix-B1

Bachelor of Science

Teaching and Examination scheme

Three year (SIX SEMESTERS) CBCS Degree Progamme

B.Sc. Part II (Semester III and IV)

Sr.No	Subjects	Teaching scheme				Examination Scheme										
						Theory							Practical			
		Th+Tu Periods	Pr(Periods)	Total periods	Credits	Duration hrs	Maxi.mark Th paper	Min Passing Marks Th	Max marks IA	Min.passing IA	Total	Min. passing Marks	Duration hrs.	Max.marks practical	Min.passing marks	Total marks
1.	Science Core I Paper I,II and Practical, excluding Mathematics	3+ @	--	6 + @	6	3	50	40	10	08	120	48	--	--	--	150
2.	Science Core II Paper I,II and Practical, excluding Mathematics	3+ @	--		6	3	50		10				--	--	--	
3.	Science Core III, Paper I,II and Practical, excluding Mathematics. If Core III is Mathematics then refer to row no. 4,5.	--	--	6	6	--	--	--	--	--	--	--	6 – 8 *	30	11	
4.	Mathematics (Paper I)	4+1	--	8 + 2	3	3	60	48	15	12	150	60	--	--	--	150
5.	Mathematics (Paper II)	4+1	--		3	3	60		15				--	--	--	

Note: Th=theory, Pr=practical, Tu=tutorial, IA=Internal Assessment, @ = Tutorials wherever applicable, * = If required for two days.

Minimum marks for passing will be 40% of the total marks allotted to theory and internal assessment together. A candidate has to pass in practical separately. Provided the candidate has appeared in all the papers of concerned subjects.

Appendix-B2

Bachelor of Science
Teaching and Examination scheme
Three year (SIX SEMESTERS) CBCS Degree Progamme
B.Sc. Final (Semester V and VI)

Sr.No	Subjects	Teaching scheme				Examination Scheme										
						Theory							Practical			
		Th+Tu Periods	Pr(Periods)	Total periods	Credits	Duration hrs	Maxi.mark Th paper	Min Passing Marks Th	Max marks IA	Min.passing IA	Total	Min. passing Marks	Duration hrs.	Max.marks practical	Min.passing marks	Total marks
1.	Science DSE I Paper I,II and Practical, excluding Mathematics	3+ @	--	6 + @	6	3	50	40	10	08	120	48	--	--	--	150
2.	Science DSE II Paper I,II and Practical, excluding Mathematics	3+ @	--		6	3	50		10				--	--	--	
3.	Science DSE III Paper I,II and Practical, excluding Mathematics If DSE III is Maathematics then refer row no.4,5	--	--	6	6	--	--	--	--	--	--	--	6 – 8 *	30	11	
4.	Mathematics (Paper I)	4+1	--	8 + 2	3	3	60	48	15	12	150	60	--	--	--	150
5.	Mathematics (Paper II)	4+1	--		3	3	60		15				--	--	--	

Note: Th=theory, Pr=practical, Tu=tutorial, IA=Internal Assessment, @ = Tutorials wherever applicable, * = If required for two days.

Minimum marks for passing will be 40% of the total marks allotted to theory and internal assessment together. A candidate has to pass in practical separately. Provided the candidate has appeared in all the papers of concerned subjects.

Note: 1) The strength of a batch of practical and Tutorial for Under-Graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.

(2) A period will be counted of 48 minutes duration at Under-graduate level

Appendix-C

Bachelor of Science

Three year (Six SEMESTERS) CBCS Degree Programme

Evaluation of Internal Assessment

The internal assessment marks assigned to each theory paper as mentioned in Appendix-A and B1-B2 shall be awarded on the basis of following parameter. Each BOS shall have right to decide the distribution of marks for internal assessment but there should be separate evaluation for each theory paper. Internal assessment shall be done by University approved teacher in relevant subjects. Internal assessment shall be done by the respective college one month prior to the final exam of each semester. The marks shall be sent to the university immediately after the internal assessment is over.

Internal assessment parameters

- Class test/multiple choice question objective/open book test/unit test etc.
- Home assignments/case study/quizzes/group Discussion.
- Attendance
- Seminar or project etc.
- Industrial visit/field work/visit to research Institute.
- Active participation in routine class instructional deliveries i.e. case
- Overall conduct as a responsible student, skill in articulation, leadership qualities expressed in co-curricular activities etc.

Note:1. The concerned teacher shall have to keep the record of all the above activities till the passing out of that batch.

2. At the beginning of each semester, every teacher shall inform his/her students unambiguously the method he/she proposes to adopt a scheme of marking for the internal assessment.

3. Teacher shall announce the schedule of activity for Internal Assessment in advance in consultation with HOD/ Principal.

Appendix-D

Semester Grade Point Average (SGPA): It is the measure of performance of work done in a semester. It is the ratio of total credit points earned by a student in various courses registered in a semester & the total course credits taken during that semester.

Cumulative Grade Point Average (CGPA): The CGPA is the ratio of total credit points earned by a student in various courses in all semester and the sum of total credits of all courses in all semester.

Types of Courses –

Courses in a Programme may be of three kinds: Core, Elective & Foundation.

1. Core course: This is the course which is to be studied compulsorily by a student as a core requirement of a Programme in a said discipline of study.

2. Elective Courses:

Elective course is a course which is to be chosen from a pool of paper, it may be

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

An Elective may be generic elective, focusing on those courses, which add generic proficiency. ***An elective*** may be discipline centric or may be chosen from an unrelated discipline. It may be called ***Open Elective***.

3. Foundation Course:

May be of two kinds: ***Compulsory Foundation*** *(Ability Enhancement Compulsory Course)* ***& Elective Foundation*** *(Skill Enhancement Course)*. Compulsory foundation is those courses based upon contents that leads to knowledge enhancement. They are mandatory for all disciplines. Elective foundation courses are value-based & aimed at man- making education.

Scheme for choice based credit system for B.Sc. Programme (Example is given for PCM group)

Sr No.	Core Course (12) of 6 credits each. Two papers for each core course. Total credits 72	Ability Enhancement Compulsory Course (4+4= 8 credits)	Skill Enhancement Courses SEC (2 credits). One paper from pool of papers. Total credits 4x2 = 8 credits	Discipline Specific Elective DSE (6) of 6 credits each. Two papers of each discipline from pool of papers. Total credits 6x6 = 36 credits
1	Core Course e.g. Course I Physics (Th+Pr) Course II Chemistry (Th+Pr) Course III Maths (Th)	AECC I (English) AECC II (Marathi/Supl. English/Hindi/ Other Language)		
2	Course IV Physics (Th+Pr) Course V Chemistry (Th+Pr) Course VI Maths (Th)	AECC III (English) AECC IV (Marathi/Supl. English/Hindi/ Other Language)		
3	Course VII Physics (Th+Pr) Course VIII Chemistry (Th+Pr) Course IX Maths (Th)		SEC I Environmental Studies Compulsory	
4	Course X Physics (Th+Pr) Course XI Chemistry (Th+Pr) Course XII Maths (Th)		Democracy, Elections and Good Governance Compulsory	
5			SEC III Foundation Course To be chosen by student	DSE I (Phy. Elective) Th. + Pr. DSE II (Chem. Elective) Th. + Pr. DSE III (Maths Elective) Th.
6			SEC IV Foundation Course To be chosen by student	DSE IV (Phy. Elective) Th. + Pr. DSE V (Chem. Elective) Th. + Pr. DSE VI (Maths Elective) Th.

Details of courses under Undergraduate programme B.Sc.

1)	(i) Core courses (12) with practical				
		Theory	12x4	=	48
		Practical	12x2	=	24
					72
	(ii) Core courses without practical		12x6	=	72
2)	(i)Elective courses (6) with practical				
		Theory	6x4	=	24
		Practical	6x2	=	12
					36
	(ii)Elective courses (6) without practical		6x6	=	36
3)	Ability enhancement courses(4)				
		Compulsory	4x4	=	16
4)	Skill enhancement Courses (04)		4x2	=	08

Total 132 credits for complete B.Sc. Programme.

Sem.	I	Core (18) + AECC (08)	=	26
Sem.	II	Core (18) + AECC (08)	=	26
Sem.	III	Core (18) + SEC (02)	=	20
Sem.	IV	Core (18) + SEC (02)	=	20
Sem.	V	DSE (18) + SEC (02)	=	20
Sem.	VI	DSE (18) + SEC (02)	=	20
		Total		**132 credits**

Scheme for Choice Based Credit System

Semester	Course Opted	Credits
I	Core Course I Paper I (Th) Phy	02
	Core Course I Paper II (Th) Phy	02
	Core Course I (Pr) Phy	02
	Core Course II Paper I (Th) Che	02
	Core Course II Paper II (Th) Che	02
	Core Course II (Pr) Che	02
	Core Course III Paper I (Th) Maths	03
	Core Course III Paper II (Th) Maths	03
	AECC I (English)	04
	AECCII(Marathi/Supl. English/Hindi etc)	04
		Total 26
II	Core Course IV Paper I (Th) Phy	02
	Core Course IV Paper II (Th) Phy	02
	Core Course I V(Pr) Phy	02
	Core Course V Paper I (Th) Che	02
	Core Course V Paper II (Th) Che	02
	Core Course V (Pr) Che	02
	Core Course VI Paper I (Th) Maths	03
	Core Course VI Paper II (Th) Maths	03
	AECC I (English)	04
	AECCII(Marathi/Supl. English/Hindi etc)	04
		Total 26

III	Core Course VII Paper I (Th) Phy	02
	Core Course VII Paper II (Th) Phy	02
	Core Course VII (Pr) Phy	02
	Core Course VIII Paper I (Th) Che	02
	Core Course VIII Paper II (Th) Che	02
	Core Course VIII (Pr) Che	02
	Core Course IX Paper I (Th) Maths	03
	Core Course IX Paper II (Th) Maths	03
	SEC I (Environmental Studies)	02
		Total 20
IV	Core Course X Paper I (Th) Phy	02
	Core Course X Paper II (Th) Phy	02
	Core Course X (Pr) Phy	02
	Core Course XI Paper I (Th) Che	02
	Core Course XI Paper II (Th) Che	02
	Core Course XI (Pr) Che	02
	Core Course XII Paper I (Th) Maths	03
	Core Course XII Paper II (Th) Maths	03
	SEC II (chosen by student)	02
		Total 20
V	DSE I Paper I (Th) Phy	02
	DSE I Paper II (Th) Phy	02
	DSE I (Pr) Phy	02
	DSE II Paper I (Th) Che	02
	DSE II Paper II (Th) Che	02
	DSE II (Pr) Che	02
	DSE III Paper I (Th) Maths	03
	DSE III Paper II (Th) Maths	03
	SEC III	02

		Total 20
VI	DSE IV Paper I (Th) Phy	02
	DSE IV Paper II (Th) Phy	02
	DSE IV (Pr) Phy	02
	DSE V Paper I (Th) Che	02
	DSE V Paper II (Th) Che	02
	DSE V (Pr) Che	02
	DSE VI Paper I (Th) Maths	03
	DSE VI Paper II (Th) Maths	03
	SEC IV	02
		Total 20

Total Credit for all the Semesters will be 132 for B.Sc. programme

Note: Non Practical Courses (Subjects) credit will be calculated on theory only

Assigning course-wise credits: Steps for implementation:

1. General Overview :-

The value of a particular course can be measured in number of credit points. The value of one credit may be equal to 30 to 40 hours of learning.

The scheme of examination is divided into 2 parts: internal assessment and external assessments (Semester End Examination).

Internal assessment includes: Assessment, Seminars, Case studies, Quizzes, Viva, Unit test etc.

The semester wise credit points earned by learner for under graduate Programme shall be of 132 credits.

Programme	Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	TotalCredits
Under Graduate	26	26	20	20	20	20	132

2. Credit based evaluation system:

Scheme of examination:-

It is divided into two points: Internal assessment & external assessment (semester end examination conducted by university). Internal assessment includes: Assessment, Seminars, case studies, Quizzes, Viva, Unit test etc.

The Semester End Examination for each course with practical will be as follows

One theory course of two papers: 100 marks (External assessment- University examination)

20 marks (Internal assessment)

Total 120

One practical course: 30 marks

(Practical Examination for Odd Semester will be at college level and for Even semester at university level with external examiner)

Passing standard and performance Grading –

The term 'Pass' means minimum 'D' grade or above in point grade scale 'Fails' means grade 'F' in the grade scale.

The learners to 'pass' a course shall have to obtain minimum of 40% marks in each course (external evaluation + internal evaluation together)

Grades and Grade points.

Letter Grade	Grade Point	Percentage of Marks
O(Outstanding)	10	91-100
A+ (Excellent)	9	81-90
A (Very good)	8	71-80
B+ (Good)	7	55-70
B(above average)	6	50-54
C (Average)	5	40-49
D (Pass)	4	40
F (Fail)	0	0 to 39

Calculations of CGPA & SGPA

Semester Grade Point Average (SGPA) – each semester grade point average is calculated by dividing the total of product of grade point and course credit by sum of all course credits in a semester.

SGPA $= \frac{\Sigma CG}{\Sigma C}$ for a given semester

G – Grade, C is credit for paper / course

Cumulative Grade Point Average (CGPA) for entire course

CGPA $= \frac{\Sigma CG}{\Sigma C}$ for all semesters taken together

Appendix-E

Student shall offer any combination allowed/available at the concerned college or Institute as shown below:

1. CPM - Physics, Chemistry, Mathematics
2. CZB - Chemistry, Zoology, Botany
3. CZG - Chemistry, Zoology, Geology
4. CPG - Chemistry, Physics, Geology
5. CBG - Chemistry, Botany, Geology
6. CMG - Chemistry, Mathematics, Geology
7. CZM - Chemistry, Zoology, Microbiology
8. CBM - Chemistry, Botany, Microbiology
9. CBB - Chemistry, Biochemistry, Botany
10. CBZ - Chemistry, Biochemistry, Zoology
11. CBM - Chemistry, Biochemistry, Microbiology
12. PME - Physics, Mathematics, Electronics
13. PCE - Physics, Chemistry, Electronics
14. CZE - Chemistry, Zoology, Environmental Science
15. CBE - Chemistry, Botany, Environmental Science
16. CME - Chemistry, Microbiology, Environmental Science
17. CZI - Chemistry, Zoology, Industrial fish and fisheries
18. PMC - Physics, Mathematics, Computer Science
19. BCB - Chemistry, Biochemistry, Biotechnology
20. BBB - Biochemistry, Botany, Biotechnology
21. BZB - Biochemistry, Zoology, Biotechnology
22. BMB - Biochemistry, Microbiology, Biotechnology
23. BMZ - Biotechnology, Microbiology, Zoology
24. BMC- Biotechnology, Microbiology, Chemistry
25. BMB - Biotechnology, Microbiology, Botany
26. ECM - Electronics, Computer science, Mathematics
27. PCC - Physics, Chemistry, Computer Science
28. MCC - Mathematics, Chemistry, Computer Science
29. BBC - Biotechnology, Botany, Chemistry
30. BCZ - Biotechnology, Chemistry, Zoology
31. CBM - Chemistry, Biochemistry ,Mathematics
32. CBG - Chemistry, Biochemistry, Geology
33. CGE - Chemistry, Geology, Environmental Science
34. CPE - Chemistry, Physics, Environmental Science
35. CME - Chemistry, Mathematics, Environmental Science