DIRECTION

No. : 26 / 2010   Date : 24.06.2010

Subject : Scheme for Choice Based Credit System (CBCS) and Awarding Grades to the Post Graduate Students in the Faculty of Science, Direction, 2010.

Whereas, University Grants Commission, New Delhi vide D.O.No.F-2/2008/(XI Plan), Dtd.31 Jan.2008 regarding new initiatives under the 11th Plan – Academic Reforms in the University has suggested for improving quality of higher education and to initiate the Academic Reform at the earliest.

AND

Whereas, the Academic Council while considering the above letter in its meeting held on 30.4.2008, vide item No.55 has resolved to refer the same to Dean's Committee, and the Dean's Committee in its meeting held on 19.07.2008 has decided to refer the matter to all Board of Studies.

AND

Whereas, the recommendations of various Board of Studies in the faculty of Science regarding Upgradation and Revision of various syllabi and introduction of choice based credit pattern Examination System at post graduate level was considered by the faculty of Science in its meeting held on 7.12.2009 and constituted a Committee of all Chairmen of Board of Studies and one member nominated by Chairmen of respective B.O.S. under the Chairmanship of Dean of faculty to decide the policy decision regarding choice based credit system examination pattern at P.G. level.

AND

Whereas, the faculty of Science in its emergent meeting held on 11th May, 2010 vide item No.27, has considered, accepted and recommended to Academic Council, the policy decision regarding introduction of Scheme for Choice Based Credit System (CBCS) and Awarding Grades to the Post Graduate Students in the Faculty of Science under ordinance No.4 of 2008. The recommendations of the faculty was approved by the Academic Council in its emergent meeting held on 28.5.2010, vide item No.36.

AND

Whereas, Ordinance No.4 of 2008 in respect of Examinations leading to the Degree of विज्ञान स्नातक (Bachelor of Science) is in existence in the University as per semester pattern examination system.

AND

Whereas, it is necessary to frame the Regulation regarding the Scheme for Choice Based Credit System (CBCS) and Awarding Grades to the Post Graduate Students in the Faculty of Science which is to be implemented from the Academic Session 2010-11 of M.Sc.Semester-I & onwards to all subjects in the faculty of Science and framing of Regulation for the above examination is likely to take some time.

AND

Whereas, the admission of students in the above pattern at M.Sc. Part-I (Semester-I) of all subjects in the faculty of Science are to be made in the Academic Session 2010-11.

Now, therefore, I, Dr. Kamal Singh, Vice Chancellor of Sant Gadge Baba Amravati University, in exercise of powers conferred upon me under sub-section (8) of section 14 of the Maharashtra Universities Act., 1994, do hereby direct as under:

1. This Direction may be called "Scheme for Choice Based Credit System (CBCS) and Awarding Grades to the Post Graduate Students in the Faculty of Science, Direction, 2010.

2. This Direction shall come into force with effect from the examination as shown below for all subjects for the Examinations leading to the Degree of Master of Science in the faculty of Science-
    (i)   Winter 2010 examination for M.Sc. Part-I, Semester-I,
    (ii) Summer-2011 examination for M.Sc. Part-I, Semester-II,
    (iii) Winter-2011 examination for M.Sc. Part-II, Semester-III,
    (iv) Summer-2012 examination for M.Sc. Part-II, Semester-IV.

3. The detailed Scheme for Choice Based Credit System (CBCS) and Awarding Grades to the Post Graduate students in the Faculty of Science is as given below-

I. The CBCS System

All Programmes (named after the Core subject) mentioned in para 9 of Ordinance No.4 of 2008 shall be run on Choice Based Credit System (CBCS) and the grades in 7 point scale will be awarded to the students. It is an instructional package developed to suit the needs of students to keep pace with the developments in higher

education and the quality assurance expected of it in the light of liberalization and globalization in higher education.

II. Credits and Degrees

   i)   A candidate who has successfully completed all the core courses Compulsory, Elective/ Specialised courses and project prescribed and optional approved by the University for the programme and accumulated not less than 72 (52 core and elective) Credits and who has put in the minimum residence time shall be eligible to receive the degree.

   ii)   One Credit shall mean one teaching period per week for one semester (of 16 weeks) for theory courses and one laboratory session of two periods / week for one semester. One teaching period shall be of 60 minutes duration including 10 minutes for discussion / movement.

III. Courses

   (i)   **Core Course :-** A core course is a course that a student admitted to a particular programme must successfully complete to receive the degree. There may be two kinds of core courses: The **hard-core** courses which cannot be substituted by any other course and which must be successfully completed and **soft-core** courses which may be substituted by equivalent courses from the same department. In all P.G. programmes a project with 03 credits shall be included. The project may include a viva-voce examination with a credit of 1, Normally no theory course shall have more than 4 credits.

   (ii)   **Elective Course :** Means a optional course from the basic subject or specilization.

       The core credits for any P.G. programme (inclusive of hard-core, soft-core and project) shall not exceed 60 credits and shall not be less than 48 credits. Each Board of Studies shall specify the core-credit load for their respective programme apart from approving syllabi,for all the courses offered by the department.

   (iii) **General Interest Course (GIC)**

       The General Interest Course shall be the choice of student. The student who choose the GIC shall have to register for it on payment of fees as prescribed by the University.

       The Departmental Committee shall follow a selection procedure on a first come first served basis, fixing the maximum number of students, after counselling to the students etc. to avoid overcrowding to particular course(s) at the expense of some other courses.

   (iv) Each **Course** is designed such that it includes lectures / tutorials / laboratory or field work / Seminar / Practical training / Assignments / Term paper / Report writing or review of literature and any other innovative practice etc., to meet effective teaching and learning needs.

   (v)   **Attendance :-** Students must have 75% of attendance in each Core and Elective course for appearing the examination. However student having attendance less than 75% may apply to the H.O.D. for condonation of attendance upto 15% under the provision of para 6-A (i) of Ordinance No.6.

IV. Registration for General Interest Course :-

   i)   Each student, on admission shall be assigned to a faculty advisor who shall advise the student about the academic programme and counsel him on the choice of courses listed in Appendix-Q depending on his general interest, academic background and objective.

   ii)   With the advice and consent of the faculty advisor the student shall register for courses he plans to take for the semester before classes start. No student shall be permitted to register for courses exceeding 30 credits per semester including those of repeat courses nor shall any student be permitted to register for any course without satisfactorily completing the prerequisites for the course except with the permission of the concerned teacher in the prescribed format.

   iii) If the student feels he has registered for more courses than he can handle, he shall have the option of dropping one or more of the courses he has registered for, with the consent of his advisor before the end of 3rd week of the semester. However, a student, to retain his status, should have registered at least for core course and elective course of that semester.

   iv) Students, other than those freshly admitted, shall register for the courses of their choice in the preceding semester by filling in the prescribed forms.

   v)   The University shall prescribe the maximum number of students in each General Interest Course taking into account the teachers and Physical facilities available in the Department.

   vi) The University may make available to all students a listing of all the courses offered in every semester specifying the credits, the prerequisites, a brief description or list of topics the course intends to cover, the instructor who is giving the courses, the time and place of the classes for the course. This information shall be made available on the University website.

   vii) Normally no course shall be offered unless a minimum of 10 students are registered.

   viii) The student shall have to pay the prescribed fee per course for the registration.

V. Programme Committee :-

There shall be the programme committee at the University level constituted as under-

   i)   Dean of the faculty (Chairman)

   ii)   Heads of all the Departments – (Member)

   iii) Three teachers from the affiliated colleges having post graduate courses other than University Department – nominated by the Vice-Chancellor. (Member)

   iv) Deputy Registrar (Acad) – (Secretary)

Duties and responsibilities of the Programme Committee shall be as under-

   i)   To identify the General Interest Courses (GIC) as per the need of the student and availability of teachers in the Departments.

   ii)   To approve the time table of GIC and make it available to the students before the commencement of respective semester. This time table also be made available on the University website.

   iii) To consider and approve the report of grivence redresal committee.

   iv) To remove the difficulties if any faced during implementation of the CBCS and report it to Hon'ble Vice-Chancellor for further action.

   v)   Any other matter as it think fit for the effective implementation of CBCS.

VI. Departmental Committee

1. Every P.G. programme of the University/College shall be monitored by a committee constituted for this purpose by the Department.

   TheCommittee shall consist of H.O.D. as a Chairman and all the teachers of the Deptt. of its members including one student members per class. There shall be atleast one student member on the committee.

VII. Grievances Redressal Committee

The University or College shall form a Grievance Redressal Committee for each course in each department with the Course Teacher and the HOD. This Committee shall solve all grievances relating to the Internal Assessment marks of the students.

VIII. Total credits per semester :-

Table-I
For all subjects other than Mathematics, Biotechnology & Computer Science

Course	Credits				Total
	Sem-I	Sem-II	Sem-III	Sem-IV	
Core	12	12	12	12	48
Elective	04	04	04	04	16
GIC	00	04	04	04	12
Lab. Course	06	06	06	03	21
I.A.	04	04	04	04	16
Project	00	00	00	03	03
Total	26	26 or 30	26 or 30	26 or 30	116

Table-II
For Mathematics

Course work	Credits				
	Semester I	Semester II	Semester III	Semester IV	Total
Core courses	12	12	12	12	48
Elective Courses	08	08	08	08	32
GIC	--	04	04	04	12
Internal Assessment	05	05	05	05	20
Project	--	--	--	04	04
Total	25	25 or 29	25 or 29	25 or 33	116

Table-III
For Biotechnology

Course work	Credits				
	Semester I	Semester II	Semester III	Semester IV	Total
Core courses	16	12	12	08	48
Elective Courses	--	9	--	9	18
Lab courses	24	18	18	12	72
Seminar	--	01	01	--	02
Project				06	06
Assignment			02		02
Internal Assessment			02		02
Total	40	40	35	35	150

Table-IV
For Computer Science

Course	Credits				Total
	Sem-I	Sem-II	Sem-III	Sem-IV	
Core	25	20	15	10	70
Elective	-	05	05	05	15
GIC	-	-	05	-	05
Lab. Course	06	06	06	03	22
I.A.	-	-	-	02	02
Project	-	-	-	04/02	06
Total	31	31	31	26	119

IX. Grade Awards :-

(i) A seven point rating scale is used for the evaluation of the performance of the student to provide letter grade for each course and overall grade for the Master's Programme. Grade points are based on the total number of marks obtained by him/her in all the heads of examination of the course. These grade points and their equivalent range of marks are shown separately in Table-I. The performance of the student in theory, practical, internal assessment, subjects shall be evaluated in accordance with following Table-I.

TABLE–I

Grade	Range of Marks obtained out of 100 or Equivalent fraction	Grade Points	Remarks (Not to be displayed On transcripts)
O	90-100	10	Outstanding
A+	80-89	9	Excellent
A	70-79	8	Very Good
B+	60-69	7	Good
B	55-59	6	Fair
C+	50-54	5	Average
C	40-49	4	Below Average
F	Below 40	0	Fail

TABLE-II: Final Grade Points for SGPA and CGPA

Grade Points	Final Grade	Remarks (Not to be displayed On transcripts)
9.00-10.00	O	Outstanding
8.00 – 8.99	A+	Excellent
7.00-7.99	A	Very Good
6.00-6.99	B+	Good
5.50 – 5.99	B	Fair
5.00 – 5.49	C+	Average
4.00 – 4.99	C	Below Average

Equivalence of the conventional division/class with the CGPA is in accordance with the following table no. 4.

Table III. Equivalence of Class/Division to CGPA

Sr. No.	CGPA	Class/Division
1	8.00 or more	First Class – Exemplary
2	7.50 or more but less than 8.00	First Class with Distinction
3	6.00 or more but less than 7.49	First Class
4	5.50 or more but less than 5.99	Higher Second Class
5	4.00 or more but less than 5.49	Second Class
6	Less than 4.00	Fail

The overall performance of a student is evaluated by assigning appropriate weightage to all the *four* semesters in order to maintain the quality of education. A student is permitted to appear for the semester examination subject to he or she has a minimum attendance of 75% in theory and practical classes, completes all his/her internal/ sessional assignments and clears all his/her dues. Non appearance in any examination is treated as the student having secured zero mark in that subject examination.

The evaluation is based on an average weightage system. Every subject has credit points based on the hours of study required. Every student is assessed in a subject with appropriate weightage to internal/sessional work and semester examination, thereby making the students study regularly. Every student is awarded Grade points out of maximum 10 points in each subject (based on 7 Points Scale). Based on the Grade points obtained in each subject, Semester Grade Point Average (SGPA) and then Cumulative Grade Point Average (CGPA) are computed.

X. Computation of SGPA & CGPA

Every student will be awarded points out of maximum 10 points in each subject. (based on 7 Points Scale). Based on the Grade points obtained in each subject the Semester Grade Point Average (SGPA) and then Cumulative Grade Point Average (CGPA) are computed. The computation of SGPA & CGPA, is as under:
Semester Grade Point Average (SGPA) is the weighted average of points obtained by a student in a semester and is computed as follows:

$$SGPA = \frac{U1 \times M1 + U2 \times M2 + \cdots + Un \times Mn}{U1 + U2 + \cdots Un}$$

Where U1, U2, ... are subject credit of the respective course and M1, M2, ... are the Grade Points obtained in the respective subject (out of 10)
The Semester Grade Point Average (SGPA) for all the four semesters is also mentioned at the end of every semester.
The Cumulative Grade Point Average (CGPA) is used to describe the overall performance of a student in the course and is computed as under:

$$CGPA = \frac{\sum_{n=1}^{4} SGPA(n)C_n}{\sum_{n=1}^{n=4} C_n}$$

Where SGPA (n) is the nth Semester SGPA of the student and C_n is the nth Semester total credit. The SGPA and CGPA are rounded off to the second place of decimal.

XI. Internal Evaluation Method :-

(i) At the beginning of each course, every teacher shall inform his/her students unambiguously the method he/she proposes to adopt for the continuous assessment. Normally the teacher concerned may conduct three written sessional examinations spread periodically during the semester and select best two for contributing to the final marks.

(ii) At the end of each semester the Departmental Committee shall assign grades to the students.

(iii) The Departmental Committee shall prepare the copies of the result sheet in duplicate.

(iv) Every student shall have the right to scrutinize answer scripts of sessional/end-semester examinations and seek clarifications from the teacher regarding evaluation of the scripts immediately thereafter or within 3 days of receiving the evaluated scripts.

(v) The Department shall display the grade points and grades for the notice of students.

(vi) The department shall send all records of evaluation, including sessional evaluation, for safekeeping to the Controller of Examinations as soon as all the formalities are over.

XII. Grade Card

The University shall issue at the beginning of each semester a grade card for the student, containing the grades obtained by the student in the previous semester and his Semester Grade Point Average (SGPA).

The grade card shall list:

- (a) the title of the courses along with code taken by the student
- (b) the credits associated with the course,
- (c) the grade and grade points secured by the student,
- (d) the total credits earned by the student in that semester.
- (e) the SGPA of the student,
- (f) the total credits earned by the students till that semester and
- (g) the CGPA of the student (At the end of the IVth Semester).

XIII. At the end of the IVth semester, the University shall issue the statement of marks to the Students showing details of marks obtained by the student in each Head in each semester along with grade total marks.

XIV. Power to modify and remove difficulties :-

1. Not withstanding anything contained in the foregoing, Hon'ble V.C. in consultation with the Dean of the faculty shall have the power to issue directions or orders to remove any difficulty,
2. Nothing in the foregoing may be construed as limiting the power of the University to amend, modify or repeal any all of the above.

Amravati

Date : 13/7/2009

(Dr.Kamal Singh)

Vice-Chancellor

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Examination Scheme under C.B.C.S. for the subject other than Mathematics, Biotechnology and Computer Science in the faculty of Science

M.Sc. Part-I

Semester-I

SA-Subject abbriviation; C-Core; E-Elective

Sr.No	Paper / Code	Course	Theory				Practical		
			Max. marks (Credits)	Min Pass Marks (Min. Grade Pt.)	Int. Ass. (Credits)	Min. Pass Marks (Min. Grade Pt.)	Th + Int. Ass. Min.Pass Mar. (Grade Pt.) (5+7)	Max. Marks (Credits)	Min. Pass marks (Min. Grade Point)
1	2	3	4	5	6	7	8	9	10
1	1SA-1	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
2	1SA-2	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
3	1SA-3	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
4	1SA-4	E	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
5	1SA-5	Lab-I	--	--	--	--	--	100 (03)	40 (04)
6	1SA-6	Lab-II	--	--	--	--	--	100 (03)	40 (04)

Total Marks : 600;   Minimum Total Credits : 26

Note :- (1) If the student has scored minimum marks or minimum grade points mentioned in Column No.8 out of the sum of total marks of theory and internal assessment taken together then he/she will be declared to have cleared with (04+01) 05 credits.

(2) If the student has scored minimum marks or minimum grade points in either theory or in internal assessment then he/she will be declared to have cleared in that particular head.

Examination Scheme under C.B.C.S. for the subject other than Mathematics, Biotechnology and Computer Science in the faculty of Science
M.Sc. Part-I
Semester-II

SA-Subject abbrivation; C-Core; E-Elective; GIC-General Interest Course

Sr.No.	Paper / Code	Course	Theory				Practical		
			Max. marks (Credits)	Min Pass Marks (Min. Grade Pt.)	Int. Ass. (Credits)	Min. Pass Marks (Min. Grade Pt.)	Th + Int. Ass. Min.Pass Mar. (Grade Pt.) (5+7)	Max. Marks (Credits)	Min. Pass marks (Min. Grade Point)
1	2	3	4	5	6	7	8	9	10
1	2SA-1	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
2	2SA-2	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
3	2SA-3	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
4	2SA-4 Or 2GIC-X	E and/or GIC	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
5	2SA-5	Lab-III	--	--	--	--	--	100 (03)	40 (04)
6	2SA-6	Lab-IV	--	--	--	--	--	100 (03)	40 (04)

Total Marks : 600;   Minimum Total Credits : 26

Note :- (1) If the student has scored minimum marks or minimum grade points mentioned in Column No.8 out of the sum of total marks of theory and internal assessment taken together then he/she will be declared to have cleared with (04+01) 05 credits.

(2) If the student has scored minimum marks or minimum grade points in either theory or in internal assessment then he/she will be declared to have cleared in that particular head.

Examination Scheme under C.B.C.S. for the subject other than Mathematics, Biotechnology and Computer Science in the faculty of Science
M.Sc. Part-II
Semester-III

SA-Subject abbrivation; C-Core; E-Elective; GIC-General Interest Course

Sr.No.	Paper / Code	Course	Theory				Practical		
			Max. marks (Credits)	Min Pass Marks (Min. Grade Pt.)	Int. Ass (Credits)	Min. Pass Marks (Min. Grade Pt.)	Th + Int. Ass. Min.Pass Mar. (Grade Pt.) (5+7)	Max. Marks (Credits)	Min. Pass marks (Min. Grade Point)
1	2	3	4	5	6	7	8	9	10
1	3SA-1	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
2	3SA-2	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
3	3SA-3	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
4	3SA-4 Or 3GIC-Y	E and/or GIC	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
5	3SA-5	Lab-V	--	--	--	--	--	100 (03)	40 (04)
6	3SA-6	Lab-VI	--	--	--	--	--	100 (03)	40 (04)

Total Marks : 600;   Minimum Total Credits : 26

Note :- (1) If the student has scored minimum marks or minimum grade points mentioned in Column No.8 out of the sum of total marks of theory and internal assessment taken together then he/she will be declared to have cleared that (04+01) 05 credits.

(2) If the student has scored minimum marks or minimum grade points in either theory or in internal assessment then he/she will be declared to have cleared in that particular head.

Examination Scheme under C.B.C.S. for the subject other than Mathematics, Biotechnology and Computer Science in the faculty of Science
M.Sc. Part-II
Semester-IV

SA-Subject abbrivation; C-Core; E-Elective; GIC-General Interest Course

Sr.No.	Paper / Code	Course	Theory				Th + Int. Ass. Min.Pass Mar. (Grade Pt.) (5+7)	Practical	
			Max. marks (Credits)	Min Pass Marks (Min. Grade Pt.)	Int. Ass. (Credits)	Min. Pass Marks (Min. Grade Pt)		Max. Marks (Credits)	Min. Pass marks (Min. Grade Point)
1	2	3	4	5	6	7	8	9	10
1	4SA-1	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
2	4SA-2	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
3	4SA-3	C	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
4	4SA-4 Or 4GIC-Z	E and/or GIC	80 (04)	32 (04)	20 (01)	08 (04)	40 (04)	--	--
5	4SA-5	Lab-V	--	--	--	--	--	100 (03)	40 (04)
6	4SA-6	Project	--	--	--	--	--	100 (03)	40 (04)

Total Marks : 600;   Minimum Total Credits : 26

Note :- (1) If the student has scored minimum marks or minimum grade points mentioned in Column No.8 out of the sum of total marks of theory and internal assessment taken together then he/she will be declared to have cleared with (04+01) 05 credits.

(2) If the student has scored minimum marks or minimum grade points in either theory or in internal assessment then he/she will be declared to have cleared in that particular head.

Examination Scheme under C.B.C.S. for the subject Mathematics in the faculty of Science
M.Sc. Part-I
Semester-I

Sr.No.	Paper / Code	Course	Theory							
			Max. marks (Credits)		Min Pass Marks (Min. Grade Pt.)		Int. Ass. (Credits)		Min. Pass Marks (Min. Grade Pt.)	Th+Int. Ass. Min. Pass Marks (Min. Grade Points) (5+7)
1	2	3	4		5		6		7	8
1	1MTH-1	C	80	(04)	32	(04)	20	(01)	08 (04)	40 (04)
2	1MTH-2	C	80	(04)	32	(04)	20	(01)	08 (04)	40 (04)
3	1MTH-3	C	80	(04)	32	(04)	20	(01)	08 (04)	40 (04)
4	1MTH-4	E	80	(04)	32	(04)	20	(01)	08 (04)	40 (04)
5	1MTH-5	E	80	(04)	32	(04)	20	(01)	08 (04)	40 (04)
			400	(20)			100	(05)		

Total Marks : 500;   Total Credits : 25

Note :- (1) If the student score Minimum Marks or Minimum Grade Points mentioned in Column No.8 out of the sum total marks of theory and internal assessment taken together then he/she will be declared to have clear (04+01) 05 credits.

(2) If the student score Minimum Marks or Minimum Grade Points in either theory or internal assessment then he/she will be declared to have clear either of the head.

Examination Scheme under C.B.C.S. for the subject Mathematics in the faculty of Science
M.Sc. Part-I
Semester-II

Sr.No.	Paper / Code	Course	Max. marks (Credits)		Min Pass Marks (Min. Grade Pt.)		Int. Ass. (Credits)		Min. Pass Marks (Min. Grade Pt.)		Th+Int. Ass. Min. Pass Marks (Min. Grade Points) (5+7)	
				Theory								
1	2	3	4		5		6		7		8	
1	2MTH-1	C	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
2	2MTH-2	C	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
3	2MTH-3	C	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
4	2MTH-4	E	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
5	2MTH-5 and/or 2GIC-X	E and/or GIC	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
			400	(20)			100	(05)				

Total Marks : 500; Total Credits : 25

Note :- (1) If the student score Minimum Marks or Minimum Grade Points mentioned in Column No.8 out of the sum total marks of theory and internal assessment taken together then he/she will be declared to have clear (04+01) 05 credits.

(2) If the student score Minimum Marks or Minimum Grade Points in either theory or internal assessment then he/she will be declared to have clear either of the head.

Examination Scheme under C.B.C.S. for the subject Mathematics in the faculty of Science
M.Sc. Part-II
Semester-III

Sr.No.	Paper / Code	Course	Max. marks (Credits)		Min Pass Marks (Min. Grade Pt.)		Int. Ass. (Credits)		Min. Pass Marks (Min. Grade Pt.)		Th+Int. Ass. Min. Pass Marks (Min. Grade Points) (5+7)	
				Theory								
1	2	3	4		5		6		7		8	
1	3MTH-1	C	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
2	3MTH-2	C	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
3	3MTH-3	C	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
4	3MTH-4	E	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
5	3MTH-5 and/or 3GIC-Y	E and/or GIC	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
			400	(20)			100	(05)				

Total Marks : 500; Min.Total Credits : 25

Note :- (1) If the student score Minimum Marks or Minimum Grade Points mentioned in Column No.8 out of the sum total marks of theory and internal assessment taken together then he/she will be declared to have clear (04+01) 05 credits.

(2) If the student score Minimum Marks or Minimum Grade Points in either theory or internal assessment then he/she will be declared to have clear either of the head.

Examination Scheme under C.B.C.S. for the subject Mathematics in the faculty of Science
M.Sc. Part-I
Semester-IV

Sr.No.	Paper / Code	Course	Max. marks (Credits)		Min Pass Marks (Min. Grade Pt.)		Int. Ass. (Credits)		Min. Pass Marks (Min. Grade Pt.)		Th+Int. Ass. Min. Pass Marks (Min. Grade Points) (5+7)	
				Theory								
1	2	3	4		5		6		7		8	
1	4MTH-1	C	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
2	4MTH-2	C	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
3	4MTH-3	C	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
4	4MTH-4	E	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
5	4MTH-5 and/or 4GIC-Z and/or Project	E and/or GIC and/or Project	80	(04)	32	(04)	20	(01)	08	(04)	40	(04)
			400	(20)			100	(05)				

Total Marks : 500; Min.Total Credits : 25

Note :- (1) If the student score Minimum Marks or Minimum Grade Points mentioned in Column No.8 out of the sum total marks of theory and internal assessment taken together then he/she will be declared to have clear (04+01) 05 credits.

(2) If the student score Minimum Marks or Minimum Grade Points in either theory or internal assessment then he/she will be declared to have clear either of the head.

Scheme of Teaching and Examination under C.B.C.S. for the Subject Biotechnology
M.Sc. (Biotechnology) SEMESTER PATTERN
M.Sc.Part-I (SEMESTER-I)

T: Lectures, P: Practical, TU: Tutorial/Assignment, G.I.C – General Interest Course

S N	Subject Code	Paper	Course	Hrs/Week		Credits		Examination Scheme								
								Theory					Practical			
				T	P/TU	Theory	Practical	Paper Hrs	Max External Marks	Max Internal Marks	Total	Min Passing Grade Points	Max Marks Practical	Max Marks Int Ass	Total	Min Passing Grade Points
1	1BTB-1	I	C	04	06	04		3	100		100	4	--	--	--	--
2	1BTB-2	II	C	04	06	04		3	100		100	4	--	--	--	--
3	1BTB-3	III	C	04	06	04		3	100		100	4	--	--	--	--
4	1BTB-4	IV	C	04	06	04		3	100		100	4	--	--	--	--
5	1BTB-5	Lab-I		--	P 01		12	--	--	--	--	.	80	20	100	5
6	1BTB-6	Lab-II		--	P 02		12	--	--	--	--	--	80	20	100	5
				16	24	16	24				400				200	

Total Credits: 40

Scheme of Teaching and Examination under C.B.C.S. for the Subject Biotechnology
M.Sc. (Biotechnology) SEMESTER PATTERN
M.Sc.Part-I (SEMESTER-II)

T: Lectures, P: Practical, TU: Tutorial/Assignment; G.I.C – General Interest Course

S N	Subject Code	Paper	Course	Hrs/Week		Credits		Examination Scheme								
								Theory					Practical			
				T	P/TU	Theory	Practical	Paper Hrs	Max Theory	Max Internal	Total	Min Passing Grade Points	Max Marks Practical	Max Marks Int Ass	Total	Min Passing Grade Points
1	2BTB-1	V	C	04	06	4		3	100		100	4	--	--	--	--
2	2BTB-2	VI	C	04	06	4		3	100		100	4	--	--	--	--
3	2BTB-3	VII	C	04	06	4		3	100		100	4	--	--	--	--
4	2BTB-4 and/or 2GIC-X	VIII	E and/or GIC	04	06	4		3		100	100	4	--	--	--	--
5	2BTB-5	Lab-III			P 02		12	--	--	--	--	--	80	20	100	5
6	2BTB-6	Lab-IV			P 02		12	--	--	--	--	--	80	20	100	5
		Total		16	25	16	24				400				200	

Total Credits: 40

Scheme of Teaching and Examination under C.B.C.S. for the Subject Biotechnology
M.Sc. (Biotechnology) SEMESTER PATTERN
M.Sc.Part-II (SEMESTER-III)

T: Lectures, P: Practical, TU: Tutorial/Assignment; G.I.C. – General Interest Course

S N	Subject Code	Paper	Course	Hrs/Week		Credits		Examination Scheme								
								Theory					Practical			
				T	P/TU	Theory	Practical	Paper Hrs	Max Theory	Max Internal	Total	Min Passing Grade Points	Max Marks Practical	Max Marks Int Ass	Total	Min Passing Grade Points
1	3BTB-1	IX	C	04	06	64		3	100	--	100	4	--	--	--	--
2	3BTB-2	X	C	04	06	64		3	100	--	100	4	--	--	--	--
3	3BTB-3	XI and 3GIC-Y	C and GIC	04	06	64		3	100	--	100	4	--	--	--	--
4	3BTB-4	Lab-V			P 02		18	--	--	--	--	--	80	20	100	5
5	3BTB-5	Internal Assessment			01		02	--	--	--	--	--	--	75	75	5
6	3BTB-6	Assignment					02		--	--	--	--	--	50	50	5
7		Seminar			01	1		-	--	--	--	--	--	75	75	5
		Total		12	20	13	22	-	--	--	300	--	--	--	300	--

Total Credits: 35

Scheme of Teaching and Examination under C.B.C.S. for the Subject Biotechnology
M.Sc. (Biotechnology) SEMESTER PATTERN
M.Sc.Part-II (SEMESTER-IV)

T: Lectures, P: Practical, TU: Tutorial/Assignment; G.I.C. – General Interest Course

S N	Subject Code	Paper	Course	Hrs/Week		Credits		Examination Scheme								
								Theory					Practical			
				T	P/TU	Theory	Practical	Paper Hrs	Max Theory	Max Internal	Total	Min Passing Grade Points	Max Marks Practical	Max Marks Int Ass	Total	Min Passing Grade Points
1	4BTB-1	XII	C	04	06	64		3	100	--	100	4	--	--	--	--
2	4BTB-2	XIII	C	04	06	64		3	100	--	100	4	--	--	--	--
3	4BTB-3 and 4GIC-Z	XIV	E and/or GIC	04	06	64		3		100	100	4	--	--	--	--
4	4BTB-4	Lab-VI					18						80	20	100	5
5	4BTB-5	Project			06		06						200	--	200	5
		Total		12	24	12	24	-	--	--	300	--	--	--	300	--

Total Credits: 35

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Scheme of Teaching and Examination under C.B.C.S. for the subject Computer Science
M.Sc. (Computer) SEMESTER PATTERN
M.Sc.Part-I (SEMESTER-I)

T: Lectures, P: Practical, TU: Tutorial/Assignment, G.I.C. – General Interest Course, C-Core

S N	Subject Code	Paper	Course	Hrs/Week		Credits		Examination Scheme									
								Theory						Practical			
				T	P/TU	Theory	Practical	Paper Hrs	Max External Marks	Max Internal Marks	Total	Min Passing Grade Points		Max Marks Practical	Max Marks Int. Ass	Total	Min Passing Grade Points
1	1MCS-1	I	C	5	-	5	-	3 Hrs	100	-	100	40	4.00				
2	1MCS-2	II	C	5	-	5	-	3 Hrs	100	-	100	40	4.00				
3	1MCS-3	III	C	5	-	5	-	3 Hrs	100	-	100	40	4.00				
4	1MCS-4	IV	C	5	-	5	-	3 Hrs	100	-	100	40	4.00				
5	1MCS-5	V	C	5	-	5	-	3 Hrs	100	-	100	40	4.00				
6	1MCS-6	Lab-I	-	-	7	-	03			-				100	-	100	40 4.0
7	1MCS-7	Lab-II	-	-	7	-	03			-				100	-	100	40 4.0
		Total		25	14	25	06							100	-	100	40 4.0

Total Credits: 40

Scheme of Teaching and Examination under C.B.C.S. for the subject Computer Science
M.Sc. (Computer) SEMESTER PATTERN
M.Sc.Part-I (SEMESTER-II)

T: Lectures, P: Practical, TU: Tutorial/Assignment, G.I.C. – General Interest Course, C-Core

S N	Subject Code	Paper	Course	Hrs/Week		Credits		Examination Scheme									
								Theory						Practical			
				T	P/TU	Theory	Practical	Paper Hrs	Max Theory	Max Internal	Total	Min Passing Grade Points		Max Marks Practical	Max Marks Int. Ass	Total	Min Passing Grade Points
1	2MCS-1	VI	C	5	-	5	-	3 Hrs	100	-	100	40	4.00				
2	2MCS-2	VII	C	5	-	5	-	3 Hrs	100	-	100	40	4.00				
3	2MCS-3	VIII	C	5	-	5	-	3 Hrs	100	-	100	40	4.00				
4	2MCS-4	IX	C	5	-	5	-	3 Hrs	100	-	100	40	4.00				
5	2MCS-5 Or 2GIC-X	X	E or GIC	5	-	5	-	3 Hrs	100	-	100	40	4.00				
6	2MCS-6	Lab-III	-	-	7	-	03	-	-	-	-						
7	2MCS-7	Lab-IV	-	-	7	-	03	-	-	-	-			100	-	100	40 4.0
				25	14	25	06							100	-	100	40 4.0

Total Credits: 40

Scheme of Teaching and Examination under C.B.C.S. for the subject Computer Science
M.Sc. (Computer) SEMESTER PATTERN
M.Sc Part-II (SEMESTER-III)

T: Lectures, P: Practical, TU: Tutorial/Assignment, G.I.C. – General Interest Course

S N	Subject Code	Paper	Course	Hrs/Week		Credits		Examination Scheme									
								Theory					Practical			
				T	P/TU	Theory	Practical	Paper Hrs	Max Theory	Max Internal	Total	Min Passing Grade Points	Max Marks Practical	Max Marks Int. Ass	Total	Min Passing Grade Points
1	3MCS-1	XI	C	5	-	5	-	3 Hrs	100	-	100	40 4.00				
2	3MCS-2	XII	C	5	-	5	-	3 Hrs	100	-	100	40 4.00				
3	3MCS-3	XIII	C	5	-	5	-	3 Hrs	100	-	100	40 4.00				
4	3MCS-4	XIV	E	5	-	5	-	3 Hrs	100	-	100	40 4.00				
5	3MCS-5 Or 3GIC-Y	XV	E or GIC	5	-	5	-	3 Hrs	100	-	100	40 4.00				
6	3MCS-6	Lab-V	-	-	7	-	03			-						
7	3MCS-7	Lab-VI	-	-	7	-	03			-			100	-	100	40 4.0
		Total		25	14	25	06						100	-	100	40 4.0

Total Credits: 35

Scheme of Teaching and Examination under C.B.C.S. for the subject Computer Science
M.Sc. (Computer) SEMESTER PATTERN
M.Sc Part-II (SEMESTER-IV)

T: Lectures, P: Practical, TU: Tutorial/Assignment, G.I.C. – General Interest Course

S N	Subject Code	Paper	Course	Hrs/Week		Credits		Examination Scheme									
								Theory					Practical			
				T	P/TU	Theory	Practical	Paper Hrs	Max Theory	Max Internal	Total	Min Passing Grade Points	Max Marks Practical	Max Marks Int. Ass	Total	Min Passing Grade Points
1	4MCS-1	XVI	C	5	-	5	-	3 Hrs	100	-	100	40 4.00				
2	4MCS-2	XVII	C	5	-	5	-	3 Hrs	100	-	100	40 4.00				
3	4MCS-3 Or 4GIC-Z	XVIII	E or GIC	5	-	5	-	3 Hrs	100	-	100	40 4.00				
4	4MCS-4	Lab-VII	-	-	7	-	03	4 Hrs	-	-	-	-	100	-	100	40 04
5	4MCS-5	Project	-	-	7	-	03+1		-	-	-	-	100	50	100	40 04
6	4MCS-6	Seminar	-	02	-	-	01+1		-	-	-	-	100	50	150	60 04
7	4MCS-7	Internal Assessment	-	06	-	-	02		-	-	-	40 4.00		50	50	20 04
		Total		23	14	15	11									

Total Credits: 35

List of General Interest Courses (GIC) to be opted by the student/s in Semester-II

Sr.No.	Subject	Subject Code Elective	Equivalent General Interest Course Code
1	2	3	4
1	Chemistry	2CHE3	2GIC-1
		2CHE4	2GIC-2
2	Physics	2PHY3	2GIC3
		2PHY4	2GIC4
3	Mathematics	2MTH4	2GIC5
		2MTH5	2GIC6
4	Zoology	2ZOO3	2GIC7
		2ZOO4	2GIC8
5	Botany	2BOT3	2GIC9
		2BOT4	2GIC-A
6	Statistics	2SCA3	2GIC-B
		2SCA4	2GIC-C
7	Biotechnology	2BTB3	2GIC-D
		2BTB4	2GIC-E
8	Computer Science	2CMS3	2GIC-F
		2CMS4	2GIC-G
9	Microbiology	2MCB3	2GIC-H
		2MCB4	2GIC-I
10	Electronics	2ELE3	2GIC-J
		2ELE4	2GIC-K
11	Biochemistry	2BMC3	2GIC-L
		2BMC4	2GIC-M
12	Geology	2GEO3	2GIC-N
		2GEO4	2GIC-O
13	Bioinformatics	2BIT3	2GIC-P
		2BIT4	2GIC-Q
14	Environmental Science	2ENV3	2GIC-R
		2ENV4	2GIC-S
15	Geoinformatics	2GIT3	2GIC-U
		2GIT4	2GIC-V
16	Computer Software	2CSW3	2GIC-W
		2CSW4	2GIC-1A
17	Remote Sensing and GIS	2RSG3	2GIC-1B
		2RSG4	2GIC-1C
18	Pharmaceutical Chemistry	2PCH3	2GIC-1D
		2PCH4	2GIC-1E

Note : Title of the paper shall prescribed in the respective prospectuses.

DIRECTION

No. : 27 / 2010

Date : 24.6.2010

Subject : **Examinations leading to the Degree of विज्ञान पारंगत (Master of Science) (Four Semester Degree Course), Direction, 2009.**

Whereas, Ordinance No.4 of 2008 in respect of Examinations leading to the Degree of विज्ञान पारंगत (Master of Science) (Four Semester Degree Course) Ordinance, 2008 is in existance in the University.

AND

Whereas, the Academic Council in its meeting held on 28.5.2010 vide item No.36 has approved the policy decision regarding introduction of Scheme for Choice Based Credit System (CBCS) and Awarding Grades to the Post Graduate Students in the Faculty of Science, for all subjects along with Draft Regulation in this behalf.

AND

Whereas, due to implementation of Scheme for Choice Based Credit System (CBCS) and Awarding Grades to the Post Graduate Students in the Faculty of Science, the provision under Ordinance No.4 of 2008 need to be revised accordingly.

AND

Whereas, admission to students for M.Sc. Part-I (Semester-I) for all subjects in the faculty of Science are to be made in the Academic Session 2010-11 in choice based credit system (C.B.C.S.).

AND

Whereas, making amendments in Original Ordinance No.4 of 2008 is likely to take some time.

Now, therefore, I, Dr. Kamal Singh, Vice Chancellor of Sant Gadge Baba Amravati University, in exercise of powers conferred upon me under sub-section (8) of section 14 of the Maharashtra Universities Act., 1994, do hereby direct as under:

1. This Direction may be called "Examinations leading to the Degree of विज्ञान पारंगत (Master of Science) (Four Semester Degree Course), Direction, 2009".

2. This direction shall come into force from the date of its issuance.

3. The word "or Biochemistry" in clause i) of sub-para (i) of para 5 shall be deleted.

4. The title of the subject "Electronics (Instrumentation)" be substituted as "Electronics" wherever occur in the Ordinance.

5. Following shall be the eligibility criteria for admission to M.Sc. Part-I Semester-I for the subjects – (i) Pharmaceutical Chemistry, (ii) Biotechnology, (iii) Computer Science.
   (a) for admission to M.Sc. Pharmaceutical Chemistry a candidate shall have offered Chemistry or Industrial Chemistry or Biochemistry as a subject of study and examination at the B.Sc. Degree.
   (b) following shall be the eligibility for admission to M.Sc. Semester-I (Biotechnology) -
   (i) B.Sc. in any discipline of Life Sciences, Bio Sciences or Bachelor's Degree in Agriculture, Veternary and fishery Sciences, Pharmacy, or Bachelor of Medicine and Bachelor of Surgery (M.B.B.S.) or Bachelor of Dental Surgery or equivalent examination recognized by Sant Gadge Baba Amravati University are eligible to appear in entrance test as given in para (iii) below.
   (ii) The student should have minimum 50% marks as aggregate in the degree course.
   (iii) The student will have to pass entrance examination for admission in M.Sc. Semester-I (Biotechnology) as per the Sant Gadge Baba Amravati University rules.
   (c) following shall be the eligibility for admission to M.Sc. Semester-I (Computer Science) -
      i. A person who has passed the Degree of Bachelor of Science of this university with Computer Science / Computer Application (Vocational) as on the subjects.
      OR
      ii. A person who has passed B.A. / B.Sc. with Mathematics plus Post Graduate Diploma in Computer Science of this University.
      OR
      iii. A person who has passed a Degree of Bachelor of Computer Science.

6. The following subject be inserted in para 9) of the Ordinance after Sr.No. "15. Bioinformatics".
   "16. Computer Software,
   17. Computer Science
   18. Biotechnology, and
   19. Pharmaceutical Chemistry.

7. A person who desire to improve the division obtained by him/her at M.Sc. examination shall be eligible for improvement of division under the provision of Ordinance No.6 of 2008. However, for improvement of division he/she shall have to offer the core courses only. In no case he/she shall be allowed for improvement of division/grade/CGPA by offering General Interest Course.

8. The number of papers and marks allotted to each subject and the minimum marks which an examinee must obtained in order to pass the examination shall be as indicated in Appendices, appended with the Regulation.

9. The classification in reference to the class/division/grade to be awarded to the examinee shall be as per the Table-III (Equivalence to Class / Division to CGPA) of para No.IX, appended to the Regulation.

10. As soon as possible after the examination, but not later than 30th, June following, the B.O.E. shall publish a list of successful examinees arranged in Division as mentioned in Table-III (Equivalence to Class / Division to CGPA) of para No.IX, appended to the Regulation. The names of examinees passing the examination as a whole in the minimum prescribed period and obtaining the prescribed number of places in each subject in the division as per Table-III of the Regulation shall be arranged in order of merit as provided in the Examinations in General Ordinance No.6.

Amravati   (Dr.Kamal Singh)
Date : ..../6/2009   Vice-Chancellor

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