



# GONDWANA UNIVERSITY GADCHIROLI

## Ordinance No. 16 of 2017

### EXAMINATIONS LEADING TO THE DEGREE OF BACHELOR OF COMPUTER APPLICATION (B.C.A.) (Three year Degree course) In THE FACULTY OF SCIENCE (SEMESTER PATTERN WITH CREDIT-GRADE SYSTEM) Ordinance,2017.

WHEREAS, it is expedient to provide an Ordinance in respect of Examinations leading to the Degree of Bachelor of Computer Application (B.C.A) (Three year Degree Course) in the Faculty of Science with Semester Pattern and Credit Grade System for the purpose hereinafter appearing, the Management council is here by pleased to make the following Ordinance:-

1. This Ordinance may be called“ Examinations leading to the Degree of **Bachelor of Computer Application**(B.C.A.) (Three years degree course) (Semester Pattern with Credit Grade System) Ordinance, 2017.
2. This Ordinance shall come into force with effect from the date of its making by the Management Council.
3. The course for Degree of B.C.A. under this Ordinance shall extend over a period of three academic years with six semesters. At the end of each semester there shall be a university examination namely:-
  - (a) the **Bachelor of Computer Application** Semester-I & II examinations;
  - (b) the **Bachelor of Computer Application** Semester III & IV examinations;
  - and
  - (c)the **Bachelor of Computer Application** Semester V & VI examination.
4. The examination specified in the preceding paragraph shall be held semester wise at such places and on such dates as may be appointed by the university.
5. Subject to has compliance with the provisions of this Ordinance and of other ordinances in force from time to time, the candidate who has prosecuted a regular course of study for not less than one academic year prior to the examination shall be eligible for admissions to the examinations.
6. Every applicant for admission to examination shall-
  - (a). **In case of the Bachelor of Computer Application Part-I examination:-**

Have passed not less than one academic year previously the 12<sup>th</sup> standard examination of the Maharashtra State Board of Secondary and Higher secondary Education with English and Mathematics or an examination recognized as equivalent thereto in such subjects and with such standards of attainments as may be prescribed.

Provided that students passing the 12<sup>th</sup> standard examination of the Maharashtra state Board of secondary and higher secondary Education and offering Vocational Stream with Mathematics shall be eligible for admission to the Bachelor of Computer Application Part-I examinations.
  - (b). **In case of the Bachelor of Computer Application Part II examinations:-**

Have passed not less than one academic year previously the Bachelor of Computer Application Part-I examinations of the University or an examinations recognized as equivalent thereto, and

**(e). In case of the Bachelor of Computer Application Part III examinations:-**

Have passed not less than one academic year previously the Bachelor of Computer Application Part- II examinations of the University or an examinations recognized as equivalent thereto.

7. Without prejudice to the other provisions of ordinance No. 6 relating to the examinations in the General the provisions of paragraph 5, 8, 10, 31 and 32 of the said ordinance shall apply to every collegiate candidate.
8. The fees for the examination Shall be as prescribed by the university from time to time.
9. The scope of the subject for Bachelor of Computer Application Part-I, part-II, and final examinations shall be as indicated in the respective syllabi in force from time to time. The medium of the instruction shall be English.
10. The paper and practical in which an examinee is to be examined, the maximum marks prescribed for each paper and practical and the minimum pass mark which the examinee must obtain in order to pass in the subject and the examination shall be as prescribed in **Appendies –A, B, and C appended to this Ordinance.**
11. There will be 6 theory papers in each semester.
12. In each semester there will be 2 practical based on Computer papers.

**13. Scheme and Passing Criteria:-**

- (1) Min. Passing marks is 35% separately in Theory, Practical and Internal Assessment. examinees must pass separately in Practical by scoring min. marks in Internal and External.
- (2) Marks are rounded to next integer for fraction values  $\geq 5$ . Otherwise ignore the fraction value for deciding passing criteria.
- (3) Each theory paper is consisting of 80 marks and min. passing marks in Theory paper is 28.
- (4) Min. passing marks in Practical examination is 18 ( 9 + 9) out of 50 (25 + 25) Marks.
- (5) Each theory paper has 20 marks for Internal Assessment and min. passing marks is 07.
- (6) Internal Assessment marks comprised of atleast 4 activities out of the following:-
  - (a) Home Assignment;
  - (b) Class Test Examination Performance;
  - (c) Seminar;
  - (d) Case Studies;
  - (e) Group Discussion;
  - (f) Field Work;
  - (g) Study Tour;
  - (h) Paper Presentation;
  - (i) Book Review; and
  - (j) Involvement in Departmental and College Activities.

**14. Practical Examination Scheme :-**

- (i) **Time:** Minimum 2 Hours 30 Min. for conducting the practical examination subject to the number of computers and printers available at the center i.e. if ratio of student and number of computer are same.
  - (a) If there is less number of computer (50%) than total Enrolled students for practical examination then additional 2 hours

(b) If there is less number of computer (25%) than total Enrolled students for practical examination then additional 4 hours.

**(ii) Practical Examination Evaluation Scheme**

- |  |                 |
|--|-----------------|
| (1) One question to Write and Execute for Taking Printout of Programme | 20 Marks        |
| (2) One question to Write Programme or from Practical Index            | 10 Marks        |
| (3) Record   | 10 Marks        |
| (4) Viva   | <u>10 Marks</u> |
|  | 50 Marks        |

**15. Absorption Scheme from Yearly Pattern to Semester Pattern (From Other University to Gondwana University):-**

- (1) Admission to 3<sup>rd</sup> Semester, if student has cleared 1<sup>st</sup> year of BCA
- (2) Admission to 5<sup>th</sup> Semester, if Student has cleared 1<sup>st</sup> year and atleast two papers of 2<sup>nd</sup> year of B.C.A. along with practicals.

**16. Rules for Promotion:-**

Sr. No.	Semester	Promotion Rule
1	I	---
2	II	Must Clear all Internal Assessment and practical examination of Semester I and atleast appeared in one Theory paper of semester I of University Examination.
3	III	Must clear at least 2 Theory Papers of Semester I and two Theory Papers of Semester II
4	IV	Must Clear all Internal Assessment and practical examination of Semester III and atleast appeared in one Theory paper of semester III of University Examination.
5	V	Must clear Semester I and Semester II and should clear at least two Papers of Semester III and two Papers of Semester IV
6	VI	Must Clear all Internal Assessment and practical examination of Semester V and atleast appeared in one Theory paper of semester V of University Examination

17. Minimum marks for passing will be 35% of the total marks allotted to that paper/internal assessment/practical. A candidate has to pass individually in theory papers/internal assessment/practical .
18. The course is based on credit grade semester pattern and therefore, it will also regulated by guideline and regulation given in **Appendix-D** which is part of this Ordinance.
19. As soon as possible after the examination, Board of examinations will publish a list of successful examines at the Bachelor of Computer Application of Sem. I, II, III, IV, V, and VI. The result of all examinations shall be classified on the basis of Semester Grade Point Average 'SGPA' evaluated as specified in the adopted model Credit-grade system (**Appendix-D**)

20. The examinees who have secured pass grade in all subjects prescribed for all the examinations shall be eligible for the award of the Degree of Bachelor of Computer Application. The classification of division of examinees for the award of Degree of Bachelor of Computer Application under in the Faculty of Science shall be on the basis of Cumulative Grade Point Average 'CGPA' evaluated by accounting SGPA of I,II,III,IV,V and VI semester as demonstrated in the **Appendix D.**
21. No person shall be admitted to the Bachelor of Computer Application Part- I Part-II and final examinations, if he has already passed the corresponding or an equivalent examination of other statutory university.
22. Successful examinee at the Bachelor of Computer Application final examination shall on payment of the prescribed fee, receive a degree in the prescribed form, signed by the Vice-Chancellor.

### **(Statement of object and reasons)**

To regulate the admission, course structure and Examination Leading to the degree of Bachelor of Computer Application (B.C.A.) in the Faculty of Science (Three year degree course) with Semester Pattern and Credit Grade System, the Vice-Chancellor has issued Direction No.114 of 2012 under provision of sub-section (8) of section 14 of the Maharashtra Universities Act,1994.

It is necessary to convert the Direction No.114 of 2012 into an ordinance as provision of mentioned Act, hence this Draft ordinance is prepared for consideration of the Academic council and the Management council of the University.

## Teaching and Examination Scheme

## B.C.A. Part I (Semester – Ist and IInd)

## Semester-I

Sr. No	Paper Code	Papers/Practicals	C R E D I T	Teaching Scheme per week (hrs.)			Examination Scheme			
				Th	Pr	Total	Max. Marks		Total Marks	Minimum Passing
							External Marks (T) / (E)	Internal Marks (I)		
1	1BCA1	English	3	4	-	4	80	20	100	28 (T) 07 (I)
2	1BCA2	Supplementary English / Hindi/Marathi	3	4	-	4	80	20	100	28 (T) 07 (I)
3	1BCA3	Trends in Information Technology	3	4	-	4	80	20	100	28 (T) 07 (I)
4	1BCA4	Programing Tools and Techniques	3	4	-	4	80	20	100	28 (T) 07 (I)
5	1BCA5	Digital Electronics and Microprocessor	3	4	-	4	80	20	100	28 (T) 07 (I)
6	1BCA6	Discrete Mathematics	3	4	-	4	80	20	100	28 (T) 07 (I)
7	1BCA7	Practical - I based on IT, Office Automation (MS-Word, MS-Power Point, MS-Excel) and Paper 3	2	-	4	4	25	25	50	09+ 09 = 18 (E) + (I)
8	1BCA8	Practical-II based on Theory Paper- 5	2	-	4	4	25	25	50	09+ 09 = 18 (E) + (I)
<b>Total</b>			<b>22</b>	<b>24</b>	<b>8</b>	<b>32</b>	<b>530</b>	<b>170</b>	<b>700</b>	<b>246</b>

- **Internal Theory Paper Marks:** It includes Seminar, Assignment, Unit Test, Book Reviews etc

## B.C.A. I (Semester – II)

Sr. No	Paper Code	Papers/Practicals	C R E D I T	Teaching Scheme per week (hrs.)			Examination Scheme			
				Th	Pr	Total	Max. Marks		Total Marks	Minimum Passing
							External Marks (T) / (E)	Internal Marks (I)		
1	2BCA1	English	3	4	-	4	80	20	100	28 (T) 07 (I)
2	2BCA2	Supplementary English / Hindi/Marathi	3	4	-	4	80	20	100	28 (T) 07 (I)
3	2BCA3	Structured Programming With C	3	4	-	4	80	20	100	28 (T) 07 (I)
4	2BCA4	Data Base Management System	3	4	-	4	80	20	100	28 (T) 07 (I)
5	2BCA5	PC – Maintenance	3	4	-	4	80	20	100	28 (T) 07 (I)
6	2BCA6	Principles of Operating System and Linux	3	4	-	4	80	20	100	28 (T) 07 (I)
7	2BCA7	Practical-I based on Theory Paper-3 and 4	2	-	4	4	25	25	50	09+ 09 = 18 (E) + (I)
8	2BCA8	Practical-II based on Theory Paper- 5 and 6	2	-	4	4	25	25	50	09+ 09 = 18 (E) + (I)
<b>Total</b>			<b>22</b>	<b>24</b>	<b>8</b>	<b>32</b>	<b>530</b>	<b>170</b>	<b>700</b>	<b>246</b>

- **Internal Theory Paper Marks:** It includes Seminar, Assignment, Unit Test, Book Reviews etc

## Appendix-C

### CREDIT-GRADE SYSTEM FOR U.G. (B.C.A)

#### Course credit:

It is the unit of measurement of course works. Each course shall have an integer number of credits which reflects its weightage. **One Credit means one period of one hour duration.**

The number of Credits of a course in a given semester shall ordinarily calculated as under

$$\text{Number of Credits} = L + T + P/2$$

Where L, T and P represent the number of Lecture, Tutorial and Practical hours per week. The fraction is to be rounded off to next integer value. One Practical / Lab without theory of one hour equal to one credit.

#### Grade:

It is the measure of performance quality. At the end of each semester, a student is awarded a letter grade in each of his/her course taking into account his/her performance based on the various component of evaluation i.e. on the basis of total marks in each theory course and in each laboratory course.

When the performance exhibited by examinees is assessed in qualitative terms and impressions so obtained by the examiners are directly expressed in terms of letter grades, it is called 'Direct grading'.

The method that is based on a predetermined standard which become a reference point for a learner's performance is called "Absolute grading".

The Absolute grading system of Seven (07) points is the most popular grading system.

#### Performance Grading Scale

Marks Obtained %	Grade	Grade Point
75 & above	O	6
65 to 74.99	A	5
55 to 64.99	B	4
45 to 54.99	C	3
40 to 44.99	D	2
35 to 39.99	E	1
34.99 & below	F	0

#### **Grade Proposed Norms**

- O: Outstanding
- A: Very Good
- B: Good
- C: Average
- D: Satisfactory
- E: Pass
- F: Fail

#### **Conversion of Marks to Grades and Calculations of GPA (Grade Point Average)**

In the Credit and Grade Point System, the assessment of individual Courses in the concerned examinations will be on the basis of marks only, but the marks shall later be converted into Grades by some mechanism wherein the overall performance of the Learners can be reflected after considering the Credit Points for any given course. However, the overall evaluation

shall be designated in terms of Grade. There are some abbreviations used here that need understanding of each and every parameter involved in grade computation and the evaluation mechanism. The abbreviations and formulae used are as follows:-

**Abbreviations and Formula's Used:-**

- G: Grade
- GP: Grade Points
- C: Credits
- CP: Credit Points
- CG: Credits X Grades (Product of credits & Grades)
- $\sum CG$ : Sum of Product of Credits & Grades points
- $\sum C$ : Sum of Credits points

$$SGPA = \frac{\sum CG}{\sum C}$$

**Semester Grade point average (SGPA)**

It is indicative of performance of a student in the given semester. The Grade Point average for a semester is obtained by adding the products of Actual Grade points and relative weightage for different courses as shown in the scheme for respective semester and dividing the total credit hours for that semester as illustrated below.

$$SGPA = [ C_i G_i + C_{ii} G_{ii} + \dots + C_n G_n ] / ( C_i + C_{ii} + \dots + C_n )$$

SGPA: Semester Grade Point Average shall be calculated for individual semesters. (It is also designed as GPA)

**Cumulative Grade Point Average (CGPA)**

The cumulative Grade Point Average (CGPA) is indicative of the overall academic performance of a student in all the courses registered up to and including the latest completed semester. It is the cumulative total of the products of actual grade point and its weightage upto last semester divided by total credits of all the semesters.

$$CGPA = \frac{\sum_{i=0}^n c_i g_i}{\sum_{i=0}^n c_i}$$

CGPA: Cumulative Grade Point Average shall be calculated for the entire Program by considering all the semesters taken together.

Note: If a student is permitted to repeat any semester/course, the new letter grade will replace the old letter grade in the computation of the CGPA.

After calculating the SGPA for an individual semester and the CGPA for entire program, the value can be matched with the grade in the Grade Point table as per the Seven (07) Points Grading System and expressed as a single designated GRADE such as O, A, B, etc...

**Illustration of Calculation:-**

The illustration for the conversion of marks into grades in theory & practical, if any in individual courses are as shown below:

**1) Pass in all the courses with more than 35% marks**

Courses in the semester	Marks % obtained	Grade	Grade points (G)	Credits (C) per Course	$\sum CG = (C \times G)$	$SGPA = \frac{\sum CG}{\sum C}$
Course- I	55	B	4	4	16	
Course-II	60	B	4	4	16	



Course-III	70	A	5	4	20	82/20= 4.1
Course-IV	80	O	6	3	18	
Course-V	40	D	2	3	06	
Course-VI	45	C	3	2	06	
Passes Credit earned = 20				$\sum C = 20$	$\sum CG = 82$	Grade = B

### **Reporting of Learners Performance (Grade Card)**

The grade cards can be issued to the Learners on the basis of the above calculations in a uniform format given by the University. The grade cards of the Examinations conducted by the University shall be signed by the Controller of Examinations only as per the provision in the University Act.

The grade card will reflect the marks obtained by the Learner, Credit points of the individual Course as well as Semester, conversion of marks into grades, calculation of SGPA for each individual semester and the CGPA for the complete Program at the end of the final semester.

The grade card shall be issued with SGPA & Grade in case of middle semesters or CGPA & Grade in case of final semester only to those learners who have completed all the Courses & semesters of that program successfully. However, the learners those who are unsuccessful or carry the courses under ATKT rule will not get the SGPA & Grade in case of middle semesters or CGPA & Grade in case of the final semester unless and until they successfully complete their pending courses or semesters under the concerned program.

I, further direct that the aforesaid Direction shall come into force from the date of issuance and shall remain in force till the relevant Ordinance comes into being in accordance with the provisions of the Maharashtra Universities Act, 1994 or is repealed by an issuance of another Direction.