GONDWANA UNIVERSITY, GADCHIROLI.

ORDINANCE NO. 115 OF 2017

EXAMINATIONS LEADING TO THE DEGREE OF BACHELOR OF COMPUTER APPLICATION (B.C.A.) (SIX SEMESTER DEGREE COURSE)BASED ON CHOICE BASED CREDIT SYSTEM 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 Bachelor of Computer Application (B.C.A) (Six semester Degree Course) based on Choice based credit system in the faculty of Science and Technology, Ordinance, 2017." 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 Bachelor of Computer Application (B.C.A) (Six semester Degree Course) based on Choice based credit system 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. 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.

(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 7 point scale.

(7) Letter Grade: It is an index of performance of students in a said course. Grades are denoted by O, A+, A, B+, B, C, E & F.

(8) 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 takenduring that semester.

(9) 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.

(10)Programme: An educational program leading to award of degrees, diplomas or certificates.

(11) Semester: Each semester will have 90 teaching days.

(12) Transcript or Grade Card Certificate: Based on the grades earned, a grade card should be issued to student after every semester. It should display the details (course code, title, number of credits, grade) along with **SGPA** of that semester &**CGPA** earned till that semester.

4. Type 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.

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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 a content that leads to knowledge enhancement. They are mandatory for all disciplines. Elective foundation courses are value-based & aimed at man-making education.

5.Salient features of the Course:

i)   Each semester shallconsists of 5 papers including project, if any, and there will be 3 practical courses in each semester

ii)   Each Theory course will be of 4 credits and each Lab course (Practical's) shall be of 2 credits.

iii) Each regular student will have to appear for all the credits of each semester mentioned in the scheme.

iv) Total credits for BCA course shall be 132.

6.   The duration of the BCA course shall be of three academic years consisting of six semesters with the University examinations at the end of each semester namely:
- BCA Part I   : Semester I & Semester II Examinations
- BCA Part II   : Semester III & Semester IV Examinations
- BCA Part III   : Semester V & Semester VI Examinations

Examination will be held as per the time-table schedule decided during Academic year by the University

Sr. No.	Name of the Examination	Main Examination	Supplementary Examination
1	BCA – Semester I, III,V	Winter	Summer
2	BCA – Semester II, IV,VI	Summer	Winter

7.The examination specified in the preceding paragraph shall be held semester wise at such places and onsuch dates as prescribed bythe University.

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ELIGIBILITY TO THE COURSE:

8. Subject to his compliance with the provisions of this Ordinance and of other ordinances in force from time to time, the following applicant candidates shall be eligible for the admission to BCA and examinations thereof.

Eligibility:-

> **BCAI** - A student who passed 12thexamination with Mathematics or an examination recognized as equivalent.

9. **Eligibility Criteria for Higher Semester Examinations:**Following rules to be followed while admitting into the next higher semester.

Sr. No.	Semester	ATKT/Promotion Rules
1	I	----------
2	II	A students enrolled in Semester I shall be allowed to keep term for semester II if candidate has appeared for at least one paper of University Examination of semester I.
3	III	Candidate should have passed at least4Theory papers from 1st years (Semester I and Semester II) and must clear all practical's of both semester.
4	IV	A students enrolled in Semester III shall be allowed to keep term for semester IV if Candidate have appeared for at least one paper of University Examination of semester III.
5	V	A student shall be allowed to keep term for semester V if he / She passes 1st Year (Semester I and II)**And** Candidate should have passed at least 4 Theory papers from 2nd year (Semester III and Semester IV) and must clear all practical's of both semester.
6	VI	A students enrolled in Semester V shall be allowed to keep term for semester VI if Candidate have appeared for at least one paper of University Examination of semester V.

10. **Absorption scheme for failure students of the**

i) **Credit Based Semester Pattern:**

While switching over to Choice Based Credit System, the failure students of credit based semester pattern will be given only **Three** chances to clear the examination.

a) The candidates who have cleared Part I examination of the Credit Based Semester Pattern examination shall get admission to Third Semester of Part II of the Choice Based Credit System directly.

b) The candidates who have cleared Part I and Part II examination of the Credit Based Semester Pattern examination of the university shall get admission to Fifth Semester of Part III of the Choice Based Credit System directly.

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ii) **Annual pattern:**
    a) The candidates who have cleared first year of annual pattern shall get admission to Semester III of the Choice Based Credit System directly.
    b) The candidates who have cleared Second year of annual pattern of the university shall get admission to Semester V of the Choice Based Credit System directly.

11.   Without prejudice to other provisions of Ordinance No. 6 relating to Eexaminations in general, provisions of Para 5, 8, 9, 10, 26, 31 and 32 of the said ordinance shall apply to every student admitted to this course.

12. The fees for the tuition, examination, laboratory and other fees shall be as prescribed by the university from time to time.

13a) The scope of the subjectshall beas prescribed in the syllabus.

    b) The medium of instruction and examination shall be English.

14. The details of Papers, Practical, Project and maximum marks assigned to each one and minimum marks to pass them in the examination, is prescribed in the course structure mentioned in para 21 below.

15. The provisions for the award of grace marks for passing an examination, securing higher grade in subject(s) as updated from time to time shall apply to the examination under this Ordinance.

16   The names of the successful examinee passing the examination as a whole in the minimum prescribed period and securing the grades equivalent to first and second division shall be arranged in order of merit as provided in ordinance No.6 relating to Examinations in general.

17   Successful examinees at the end of BCAcourse who obtained CGPA above 7.51 shall be placed in First Division with distinction, those obtaining CGPA from 6.00 to 7.50 shall be placed in First Division, those obtaining CGPA from 4.50 to 5.99 shall be placed in Second Division and those obtaining CGPA from 4.00 to 4.49 shall be placed in Third Division.

18   No candidate shall be admitted to an examination under this Ordinance, if he / she have already passed the same examination of this university or of any other university.

19 Fairness in Assessment:
    For fairness of assessment in the examination following rules must be governed,
    i. In case of theory paper valuation of course, at least one valuer must be appointed from other university.
    ii. In case of the assessment of Practical/Project reports, the work should be undertaken by internal as well as external examiners on same date.

20   Scheme for choice based credit system for BCA Programme.

Semester	Core Course	Elective Course (EC)	Foundation Course		Discipline Specific Elective (DSE)
			Ability Enhancement Compulsory Course (AECC)	Skill Enhancement Courses (SEC)	

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SEM-I	**Core Group 1 Core Group 2 Core Group 3 (Lab1 & Lab2)**	One paper need to be select out of two papers and having Lab.	AECC-I (English) AECC-II (Marathi / Supl. English / Hindi / Other Language)		
SEM-II	**Core Group 4 Core Group 5 Core Group 6 (Lab1 & Lab2)**	One paper need to be select out of two papers and having Lab.	AECC III (English) AECC IV (Marathi/Supl. English/Hindi/ Other Language)		
SEM-III	**Core Group 7 Core Group 8 Core Group 9 (Lab1 & Lab2)**	One paper need to be select out of two papers and having Lab.		**SEC-I:** Environmental Studies (Compulsory)	
SEM-IV	**Core Group 10 Core Group 11 Core Group 12(Lab1 & Lab2)**	One paper need to be select out of two papers and having Lab.		**SEC-II:** Foundation Course	
SEM-V		One paper need to be select out of two papers and having Lab.		**SEC-III**: Foundation Course	**DSE-I**
SEM-VI		One paper need to be select out of two papers and having Lab.		**SEC-IV**: Foundation Course	**DSE-II**

21 Course Structure

Scheme of teaching and examination under semester pattern Choice Based Credit System (CBCS) for BCA program shall be as given below,

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BCA I (Semester I)

Subject	Paper Code	Paper Name	Total Period# /Week	Credit	% of Assessment			Min. Passing (40%)
					IA	UE	Total	
Ability Enhancement Compulsory Course (AECC-I and AECC-II)	UBCAT101	**English(Business Communication-I)**	4	4	20	80	100	**40**
	UBCAT102.1 UBCAT102.2 UBCAT102.3	**Elective** 1. **Supplementary English** 2. **Marathi** 3. **Hindi**	4	4	20	80	100	**40**
Core Courses (Core I and Core II)	UBCAT103	**Information &Communication Technology**	4	4	20	80	100	**40**
	UBCAT104	**Programming Tools & Techniques**	4	4	20	80	100	**40**
Elective Course (EC-I)	UBCAT105.1 UBCAT105.2	**Elective** 1. **Digital Electronics** 2. **Linear Electronics**	4	4	20	80	100	**40**
Core III Lab (based on Core I and Core II)	UBCAP106	**Lab on UBCAT103**	4 Prac. Per Batch	2	20	30	50	**20**
	UBCAP107	**Lab on UBCAT104**	4 Prac. Per Batch	2	20	30	50	**20**
EC based Lab	UBCAP108	**Lab on UBCAT105.1 or UBCAT105.2**	4Prac. Per Batch	2	20	30	50	**20**
		Total		**26**	**160**	**490**	**650**	**260**

- **Core:** Major theory papers in the concerned subject. Each Practical is of 2 Period per Batch. Each week there should be 2 practical per batch's.
  From Elective Courses, students need to select one paper.
- **IA**(Internal Assessment): It will be evaluated by Internal Examiner appointed by College in consultation with the University. (Refer Appendix 1)
- **UE**(University Examination): It will be evaluated by External Examiner appointed by University. (Refer Appendix 1 & 3)

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- **Period:** Each period is of 48 minutes or as per Government direction from time to time.

- In Paper Code
  - 1st Letter (U) : Represent it an Under Graduate Course
  - Next 3 Letter (BCA) :Represent it is Bachelor course in Computer Application
  - Next Letter (T/P) :   T : Represent Theory Paper (Refer Appendix 1&3)

    P:Represent Practical (Refer Appendix 1 & 2)

    S : Represent Seminar (Refer Appendix 1)
  - Next Letter (1) : Represent Semester (1- 1st, 2 – 2nd and so on 6-6th Semester)
  - Last two letter : Represent Paper No. for Ex. 01 Represent Paper No. 1

- **Lab*:**

  1)Not more than two students should be allowed to do practical on one machine. 2)Wherever possible Practical's should be perform using Open Source

- Software. **Batch:** Each batch can be of Maximum 16 students.

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*Student must appear for University Practical Examination otherwise he/she will be treated as fail. However his/her Internal marks will be carried forward. In Group, candidate must appear each theory paper.

BCA I (Semester II)

Subject	Paper Code	Paper Name	Total Period/ Week	Credit	% of Assessment			
					IA	UE	Total	Min. Passing (40%)
Ability Enhancement Compulsory Course (AECC-III and AECC-IV)	**UBCAT201**	**English(Business Communication-II)**	4	4	20	80	100	**40**
	UBCAT202.1 **UBCAT202.2** **UBCAT202.3**	**Elective** 1. **Supplementary English** 2. **Marathi** 3. **Hindi**	4	4	20	80	100	**40**
Core Courses (Core IV and Core V)	**UBCAT203**	**Fundamental of 'C'**	4	4	20	80	100	**40**
	UBCAT204	**Operating System**	4	4	20	80	100	**40**
Elective Course (EC-II)	**UBCAT205.1** **UBCAT205.2**	**Elective** 1. **Database Management System** 2. **Management Information System**	4	4	20	80	100	**40**
Core VI Lab (based on Core IV and Core V)	**UBCAP206**	**Lab on UBCAT203**	4 Prac. Per Batch	2	20	30	50	**20**
	UBCAP207	**Lab on UBCAT204**	4 Prac. Per Batch	2	20	30	50	**20**
EC based Lab	**UBCAP208**	**Lab on UBCAT205.1 or UBCAT205.2**	4 Prac. Per Batch	2	20	30	50	**20**
Total				**26**	**160**	**490**	**650**	**260**

Sem I and Sem II is of 26 credit while Sem III, Sem IV, Sem V and Sem VI is of 20 credits each. Total credit for the entire course of BCA is 132.

Note: The Practical and Project shall be evaluated by both the External and Internal Examiner appointed by University.

22. Credit, Grade, SGPA & CGPA

BCA Program shall consist of six semesters, wherein the student has to complete certain number of credits as indicated in para 21. Each Subject (Paper, Practical's, Project and Seminar) has some fixed number of credits. The types of subject subheads are: Core, Core Practical, Discipline Specific Elective, Discipline Specific Elective Practical's, Skill Enhancement course, Ability Enhancement Course and Elective course.

a) Credits and Grade:

It is 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 one hour of teaching (lecture or tutorial) or two hours of practical work / field work per week. **There will be 1 credit for16- 20 hours to be spent by the student in Theory and Practical per course in one semester.**

Depending on the marks scored in a subject, student is given a Grade. Each grade has got certain grade points as follows:

Marks Obtained	Letter Grade	Grade Point
91-100	O (Outstanding)	10
81-90	A+ (Excellent)	09
71-80	A (Very Good)	08
55-70	B+ (Good)	07
51-54	B (Satisfactory)	06
41-50	C (Average)	05
= 40	P (Pass)	04
<40	F (Fail)	0
Ab	Ab (Absent)	0

Table 1: Letter grade and Grade Point based on Marks Scored

A student obtaining Grades F and Ab shall be considered failed and will be required to reappear for the examination.

b) Computation of SGPA and CGPA

Following is the procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.

SGPA (Si) = $\Sigma(C_i \times G_i) / \Sigma C_i$

Where C_i is the number of credits of the ith course and G_i is the grade point scored by the student in the ith course.

The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a program, i.e.

CGPA = Σ (Ci x Si) / Σ Ci

   Where Si is the SGPA of the ith semester and Ci is the total number of credits in that semester.

23. Awarding Certificate and Degree

   i) Successful examinees at the end of BCA Semester I, II, III, IV, V & VI examinations shall be entitled to receive a **Certificate/ Mark sheet / Transcript**signed by the Director of Board of Examinations and evaluation.

   ii) After successful completion of BCA course and on payment of prescribed fees he/she will receive a Degree, in the prescribed format, signed by the Vice-Chancellor.

24 Evaluation rules, practical examination rules, and pattern of question paper shall be as provided under Appendices – 1, 2 and 3 respectively appended with this direction.

(Statement of object and reasons)

   Hon'ble Vice-Chancellor of the university has issued Direction No 22 of 2017 "Examinations leading to the Degree of Bachelor of Computer Application (B.C.A) (Six semester Degree Course) based on Choice based credit system in the faculty of Science and Technology, Ordinance, 2017."under provision of sub-section (8) of section 12 of the Maharashtra Public Universities Act, 2016 date 21/07/2017

   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. 22 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 1
Evaluation Rules

A) Internal Assessment :

1. The internal assessment marks shall be awarded by the concerned teacher.
2. The internal assessment marks shall be sent to the University after the Assessment in the prescribed format and direction by University.
3. General guidelines for Internal Assessment are:
   a) The internal assessment marks assigned to each theory paper on the basics of the performance in any two assignments (each of Max. 5/10 marks) as described below selected by concerned teacher.
      1. Class Test / Sessional examination
      2. On-line Test
      3. Theory Assignments
      4. Programming Assignments
      5. Study tour
      6. Industrial visits
      7. Visit to educational institutions and research organizations, field work, Conference etc
      8. Group discussions
      9. Seminar Presentation
      10. Publishing Research Paper
      11. Review of Research Papers
      12. Participation in Departmental Activities
   b) There shall be no separate / extra allotment of work load to the concerned teacher related to above assignments. He/ She shall conduct the Internal assessment activity during the regular teaching days / periods as a part of regular teaching activity.
   c) The concerned teacher / department / college shall have to keep the record of all the above activities until six months after the declaration of the results of that semester.
   d) At the beginning of each semester, every teacher / department / college shall inform his / her students unambiguously the method he / she propose to adopt and the scheme of marking for internal assessment. (Prescribed in syllabus of respective Subjects)
   e) Teacher shall announce the schedule of activity for internal assessment in advance in consultation with HOD.

B) Seminar

In Seminar, the student will have to deliver a seminar on any topic relevant to the syllabus / subject encompassing the recent trends and development in that field / subject. The topic of the seminar will be decided at the beginning of each semester in consultation with the supervising teachers. The student has to deliver the seminar which will be followed by discussion.

The students should submit the seminar report typed and properly bound in one copy to

the head of the department along with soft copy in CD. The said shall be evaluated by the concerned supervisor / head of the department. The concerned teacher / department / college shall have to keep the record of Seminar Reports until six months after the declaration of the results of that semester.

C) Practical Assessment:

Time: Minimum 2 Hours 30 Min. for conducting the practical examination subject to the condition the availability of computers and printers at the center.

Marks Distribution: A practical mark will be allocated by Internal & External Examiner as per the following format

Sr. No.	Particulars	Marks in %
a.	Writing, Execution and Printout of Program-I	40%
b.	Writing Program-II	20%
c.	Practical Record	20%
d.	Viva Voce	20%

Note:1) The Written work should be completed within max. 45 minutes.
2) For execution and taking printout max. 45 minutes is reserved.

D) Project Courses:

The project proposal should be prepared in consultation with the Internal Guide. The Project Work should be of such a nature that it could prove useful or be relevant from the System-Oriented/Application/Commercial. A student needs to submit one hard copy of project work along with two soft copies in CD in the department. A detail guideline of Project is given in the Syllabus. Classifications of Marks of Project for the Six Semester are as given below.

Sr. No.	Particulars	Max. Marks
a.	Report, Documentation and Project Execution	50
b.	Viva Voce	30
c	Internal	20
	Total	**100**

E) **Theory Paper Assessment:** Theory papers will be held as per the scheduled given by the university and examinee needs to score minimum 40% of marks to clear the paper including internal assessment marks.

F) **Revaluation**: There is also a provision for the Revaluation only for theory papers examination conducted by University (i.e. it is not applicable for Internal Assessment) as per the rules and fee structure prescribed by University.

Appendix 2
Practical Examination

1. Each practical scheme of marking shall be as per given in the scheme.
2. Practical performance shall be jointly evaluated by the External and Internal Examiner. In case of discrepancy, the External Examiner's decision shall be final.
3. Duration of practical examination will be Minimum 2 Hours 30 Min.
4. The Practical Record of every student shall carry a certificate as shown below, duly signed by the teacher-in-charge and the Head of the Department. If the student fails to submit his / her certified Practical Record duly signed by the Teacher-In-Charge and the Head of the Department, he / she shall not be allowed to appear for the Practical Examination and no Marks shall be allotted to the student.

5. The certificate template shall be as follows:

C E R T I F I C A T E

Name of the College / Institution: _
Name of the Department: _

This is to certify that this Practical Record contains the bonafide record of the practical work of Mr. / Mrs. / Ku. _
of BCA _ _ _ _ Semester _ _ _ _ _ _ _ _ _ during the academic year _ _ _ _ _ _ _.

The candidate has satisfactorily completed the practical's prescribed for the course by Gondwana University,Gadchiroli for the subject _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Dated: _ _ / _ _ / _ _ _ _

Signature of the teacher who taught the examinee

1. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
2. _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Head of the Department

General Rules and Regulations regarding pattern of question paper for the semester end examination is as given below:

1. There will be four units in each paper.
2. Maximum marks of each theory paper will be either 40 or 80.
3. Question paper will consist of five questions, each will be of either 8 or 16 marks.
4. Four questions will be based on four units with internal choice.
5. Fifth question will be compulsory with questions from each of the four units having equal weightage and there will be no internal choice.

Bachelor of Computer Application	
BCA – [I / II / III]	**Semester – [I / II/ III / IV / V / VI]**
Paper No.:	**Paper Name :**

Time: 3 Hours]   **[Max. Marks: 40/80**

Note: 1) All questions are compulsory and carry equal marks.
2) Draw Neat and Labeled diagram and use supporting data wherever necessary.
3) Avoid vague answers and write specific points/answer related to questions.

Q1 Either (From Unit 1)	
a)	4/8
b)	4/8
Or	
c)	4/8
d)	4/8
Q2 Either (From Unit 2)	
a)	4/8
b)	4/8
Or	
c)	4/8
d)	4/8
Q3 Either (From Unit 3)	
a)	4/8
b)	4/8
Or	
c)	4/8
d)	4/8
Q4 Either (From Unit 4)	
a)	4/8
b)	4/8
Or	
c)	4/8
d)	4/8
Q5 Solve all questions	
a)(From Unit 1)	2/4
b) (From Unit 2)	2/4
c)(From Unit 3)	2/4
d) (From Unit 4)	2/4