SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE

Official Publication of Sant Gadge Baba Amravati University

PART- ONE

(Extra Ordinary)

Friday, the 16th May, 2025

DIRECTION

No. : 39/2025 Date : 16/05/2025

Subject: Examinations leading to the Degree of Five Years Integrated Master of Computer Application (Five Years Ten Semesters) Course as per National Education Policy-2020 Guidelines in the Faculty of Science & Technology, Direction, 2025.

Whereas, Direction Nos. 39/2021 and 21/2021 regarding the examinations leading to the Degree of Master in Computer Application (Three Years Degree Course.... Semester Pattern) as per Choice Based Credit System and Master in Computer Application (Two Year Degree Course.... Semester Pattern) as per Choice Based Credit System in the Faculty of Science & Technology respectively are in existence in the University,

AND

Whereas, the AICTE, New Delhi vide F.No. Western/1-43663647885/2024/EOA/Corrigendum-1 dated 22.06.2024 has given extension of approval for the new Course Five Years Integrated MCA Course to Saraswati College, Shegaon, Dist. Buldana, for the Academic Year 2024-2025,

AND

Whereas, the Dept. of Higher & Technical Education, Govt. of Maharashtra, Mantralaya, Mumbai has given approval to the new Five Years Integrated MCA Course as per the approval of the AICTE, New Delhi to Saraswati College, Shegaon, Dist. Buldana, for the Academic Year 2024-2025,

AND

Whereas, the University has granted first affiliation to the new course Five Years Integrated MCA Course as per the approval of the AICTE, New Delhi and the Dept. of Higher & Technical Education, Govt. of Maharashtra to Saraswati College, Shegaon, Dist. Buldana, for the Academic Session 2024-2025 vide Notification No. 129 of 2024 dtd. 11.10.2024,

AND

Whereas, the Member Secretary, AICTE, New Delhi vide its Public Notice dated 11.6.2024 has given clarification regarding approval of Integrated BBA/MBA/BCA/MCA Courses in regard to the UGC letter dated 04.06.202 that the UGC has intimated that "as per the National Credit Framework (NCrF), the duration for an Integrated Bachelor's / Master's programme is Five Years with no relaxation in duration" and accordingly, AICTE has decided to grant approval for the Course duration of Five (5) Years with exit option as per UGC rules to the colleges who have applied for Integrated MCA and MBA Course,

AND

Whereas, the Principal, Saraswati College, Shegaon vide its letter dated 12.11.2024 has requested the University for getting the Scheme & Syllabus of the new Course MCA Integrated Five Years Course,

AND

Whereas, the Board of Studies in Computer Science & Engineering in the Faculty of Science & Technology in its meetings held on 28.11.2024 and 10.12.2024 has prepared the Schemes of teaching, learning, examination & evaluation of Semester I to X, draft Syllabus of Semester I & II and the eligibility criteria along with the draft provisions for the new course MCA Integrated Five Years Course as per AICTE norms and NEP-2020 guidelines and authorized the Chairperson of the Board for submission of the final copy of the same and further recommended the same to the Faculty of Science & Technology to be implemented from the academic session 2024-25 and onwards in phase wise manner,

AND

Whereas, the Hon'ble Vice-Chancellor has accepted & accorded approval to the recommendation of the Board of Studies in Computer Science & Engineering on behalf of the Faculty of Science & Technology & Academic Council under Section 12 (7) of the Maharashtra Public Universities Act, 2016 on dated 31.12.2024 regarding implementation of the Schemes of teaching, learning, examination & evaluation of Semester I to X, draft Syllabus of Semester I & II and the eligibility criteria along with the draft provisions for the new course MCA Integrated Five Years Course as per NEP-2020 guidelines to be implemented from the academic session 2024-25 and onwards,

AND

Whereas, the Chairperson of the Board of Studies in Computer Science & Engineering has submitted the corrected approved Schemes of teaching, learning, examination & evaluation of Semester I to X, as per the decision of the concerned Board of Studies of the new course MCA Integrated Five Years Course to the University on 24.02.2025,

AND

Whereas, the Schemes of teaching, learning, examination & evaluation along with the syllabus of the new Course MCA Integrated Five Years Course are to be implemented from the academic session 2024-2025 and onwards in phase wise manner,

AND

Whereas, the Schemes and the syllabi of the new Course MCA Integrated Five Years Course are to be made available to all the concerned of the University,

AND

Whereas, the Schemes of teaching, learning, examination & evaluation and other provisions are required to be regulated by an Ordinance / Regulation,

AND

Whereas, the process of making an Ordinance / Regulation is time consuming which will take time,

Now, therefore, I, Dr. Milind A. Barhate, Vice-Chancellor of Sant Gadge Baba Amravati University, in exercise of powers conferred upon me, under sub-section (8) of Section 12 of the Maharashtra Public Universities Act, 2016, having issued the following direction:

1. This Direction may be called as "Examinations leading to the Degree of Five Years Integrated Master of Computer Application (Five Years Ten Semesters) Course as per National Education Policy-2020 guidelines in the Faculty of Science & Technology, Direction, 2025.

2. This Direction shall come into force with effect from the date of its issuance.

3. The Degree of Five year Integrated Course of Master in Computer Application shall belongs to the Faculty of Science & Technology.

4. This Direction shall come into force w.e.f. the academic session:

(i) First Year M.C.A. Semester I & II for 2024-2025
(ii) Second Year M.C.A. Semester III & IV for 2025-2026
(iii) Third Year M.C.A. Semester V & VI for 2026-2027
(iv) Fourth Year M.C.A. Semester VII & VIII for 2027-2028 and
(v) Fifth Year M.C.A. Semester IX & X for 2028-2029

5. Subject to the compliance with the provisions of this Direction and other ordinances in force from time to time along with the rules/regulations received from the Govt. of Maharashtra, the following candidates shall be eligible for admission to Five Years Integrated Master of Computer Application (Five Years Ten Semesters) Course:

(I) **For Maharashtra State Candidature Candidate:-**

(a) The Candidate -

(i) should be a citizen of India;

(ii) Should have passed 10+2 examination with Mathematics / Statistics / Accountancy as compulsory subjects and obtained at least 45% marks in aggregate and 40% marks in case of candidates belonging to reserved category and for the Economically Weaker Sections and persons with Disabilities category belonging to Maharashtra State in the above subjects taken together, and

(iii) Shall have obtained Non-Zero score in MAH- BCA/BBA/BMS/BBM of CET conducted by the Competent Authority of the Maharashtra State,

(iv) Any other Eligibility Criteria and requirement declared from time to time by the Appropriate Authority as defied under the Act,

(II) **For All India Candidature Candidates, Union Territory of Jammu & Kashmir and Union Territory of Ladakh Migrant Candidature Candidates:-**

a) The Candidate -

(i) should be a citizen of India;

(ii) Should have passed 10+2 examination with Mathematics / Statistics / Accountancy as compulsory subjects and obtained at least 45% marks in aggregate and 40% marks in case of candidates belonging to reserved category and for the Economically Weaker Section and persons with Disabilities category belonging to Maharashtra State in the above subjects taken together, and

(iii) Should have obtained Non-Zero positive score in Common University Entrance Test (CUET) Under Graduate (UG) or obtained Non-Zero score in CET conducted by the Competent Authority,

Provided that, preference shall be given to the candidate obtained Non-Zero positive score in Common University Entrance Test (CUET) Under Graduate (UG) over the candidates obtained Non-Zero score in MAH- BCA/BBA/BMS/BBM of CET-2024 conducted by the Competent Authority,

(iv) Any other Eligibility Criteria and requirement declared from time to time by the Appropriate Authority as defied under the Act,

(III) **Non Resident Indian (NRI) or Overseas citizen of India (OCT) or person of Indian Origin (PIO), Children of Indian Workers in the Gulf Countries, Foreign National Candidature Candidates:-**

(i) The Candidate should have passed 10+2 examination with Mathematics / Statistics / Accountancy as compulsory subjects and obtained at least 45% marks in aggregate; and

(ii) Any other Eligibility Criteria and requirement declared from time to time by the Appropriate Authority as defied under the Act,

6. (i) Duration of the course shall be of Five (5) academic years.

(ii) The University shall hold the main examination of regular students of Semester I, III, V, VII & IX in Winter and Semester II, IV, VI, VIII & X in Summer every year. The supplementary examination of Semester I, III, V, VII & IX shall be held in Summer and the supplementary examination for Semester II, IV, VI, VIII & X shall be held in Winter every year.

7. For purposes of instruction and examination the student shall study sequentially.

8. The period of Academic session / Term shall be such as may be notified by the University.

9. The examinations shall be held at such places and on such dates as may be notified by the University.

10. Subject to his / her compliance with the provisions of this Direction and of other Ordinances (Pertaining to the Examinations in General) in force from time to time, the applicant for admission, at the end of the course of study of a particular term shall be eligible to appear at it, if,

(i) He / She satisfied the condition in the **TABLE - I** as mentioned below and the provision there-under.
(ii) He / She has prosecuted a regular course of study in the University/College affiliated to the University.
(iii) He / She has in the opinion of the Head of the Department/Principal shown satisfactory progress in his / her studies.

TABLE – I

Sr. No.	Name of Examination	The student should have Passed the examination of	The student should have completed The session / term satisfactorily
1	First Year MCA Semester I	The qualifying Examination mentioned in Sr.No.5 above	First Year MCA Semester I
2	First Year MCA Semester II	---------	First Year MCA Semester I & II
3	Second Year MCA Semester III	28 Credits from all Verticals of Semester I & II	Second Year MCA Semester III
4	Second Year MCA Semester IV	---------	Second Year MCA Semester III & IV
5	Third Year MCA Semester V	Successful completion of Semester I & II with all Credits and 28 Credits from all Verticals of Semester III & IV	Third Year MCA Semester V
6	Third Year MCA Semester VI	---------	Third Year MCA Semester V & VI
7	Fourth Year MCA Semester VII	Successful completion of Semester III & IV with all Credits and 28 Credits from all Verticals of Semester V & VI	Fourth Year MCA Semester VII
8	Fourth Year MCA Semester VIII	---------	Fourth Year MCA Semester VII & VIII
9	Fifth Year MCA Semester IX	Successful completion of Semester III & IV with all Credits and 28 Credits from all Verticals of Semester VII & VIII	Fifth Year MCA Semester IX
10	Fifth Year MCA Semester X	---------	Fifth Year MCA Semester IX & X

(iv) Field Projects/ Internship/ Apprenticeship/ Community Engagement and Service corresponding to the Major (Core) Subject.

These verticals of Major are to be completed by the student under the supervision of mentor faculty as per the Teaching, Learning Scheme of MCA Five Years Integrated Course.

Internship/Apprenticeship corresponding to Subject: Internship of One Semester duration shall be offered in Xth Semester. Courses offered during the Internship Semester shall be offered **in online mode**.

11.0 TEACHING LEARNING, EXAMINATION & EVALUATION SCHEME:

The Teaching, Learning, Examination & Evaluation Scheme as well as Multiple Entry Multiple Exit Scheme for all the six verticals of all semesters of the Course M.C.A. (5 Years Integrated Course) shall be as per **Appendix – A** appended with this direction**.**

12.0 COURSES ON INDIAN KNOWLEDGE SYSTEM (IKS):

The concerned academic authorities, while defining the curriculum for modules/courses on IKS, may take the support of the Indian Knowledge System (IKS) Cell under the Ministry of Education (MoE) at AICTE, New Delhi which is established to promote interdisciplinary research on all aspects of IKS, preserve and disseminate IKS for further research and societal applications. The IKS Cell has established multiple IKS Centers at different Institutes in various parts of the country to act as a catalyst for initiating research, education, and outreach activities. In addition, the list of courses may be developed and offered in online or offline mode by the parent university or the specialized HEIs.

The courses to be developed under the Indian Knowledge Systems (IKS) are as follows:

12.1 Generic IKS Course: These are expected to contain basic knowledge of the IKS subject. It should contain introductory information to the IKS. The student should be able to acquire basic knowledge after completion of the course.

12.2 Subject-Specific IKS Courses: These courses should contain advanced information pertaining to the subject as these will be considered as a part of the major credit. The student should have completed the Generic level as a prerequisite before enrolling in the discipline-related course**.**

The Autonomous Institutes/ Universities may evolve their own IKS subject-related courses by following UGC guidelines in this regard.

13.0 CREDIT SPECIFICATIONS:

i. **Theory Courses**: 15 hours of teaching per credit is required in a semester.
ii. **Laboratory Course**: 30 hours in laboratory activities per credit is required in a semester.
iii. **Studio activities**: Studio activities involve the engagement of students in creative or artistic activities. Every student is engaged in performing a creative activity to obtain a specific outcome. Studio-based activities involve visual- or aesthetic-focused experiential work. A minimum of 30 hours in studio activities per credit in a semester is required.
iv. **Workshop-based activities**: Courses involving workshop-based activities require the engagement of students in hands-on activities related to work/vocation or professional practice. Every student is engaged in performing a skill-based activity. Related to specific learning outcome (s). 26-30 hours of workshop-based activities per credit in a semester is required.
v. **Seminar/ Group Discussion**: 13-15 hours of participation in seminar/ Group Discussion activity per credit in a semester is required.
vi. **Internship**: Credits for internship shall be one credit per two weeks of internship (or 36-40 hours of engagement), The internship shall be monitored jointly by the faculty and Industry/ Organization Mentor. Internship of One Semester duration shall be offered in the X Semester. Courses offered during the Internship Semester shall be offered in online mode.
vii. **Field-based Learning/ Practices**: These are the courses requiring students to participate in field- based learning / projects generally under the supervision of faculty. A minimum of 26-30 hours of learning activities per credit in a semester is required.

14.0 ENROLLMENT AND REGISTRATION OF STUDENTS ON ABC:

Creation of ABC ID: Credits awarded to a student from one program from an institution may be transferred/ redeemed by another institution upon the students consent through ABC. Therefore, it is essential to all students to enroll on ABC, Create ABC ID and share ABC ID with academic institution where he/she admitted.

Credit Transfer Mechanism: Credit Transfer Mechanism comprising of Credit Accumulation, Credit Recognition, Credit Redemption and Credit Transfer shall be as prescribed.

15.0 CONTINUOUS ASSESSMENT TESTS (CAT):

For internal assessment, the Continuous Assessment Tests (CAT) shall be conducted as under:-

Internal Assessment Marks (Theory) will be based on Two (2) Sessional Examinations as under:

Class Test I	10 Marks
Class Test II	10 Marks
Teaching Evaluation Components	10 Marks
Class Attendance	10 Marks

16.0 CONDUCTION OF THE EXAMINATION:

As per the scheme of teaching, learning, examination and evaluation, theory/practical examinations of Semester-I, II, III, IV, V, VI, VII ,VIII, IX & X shall be conducted by the University (except for Internal Examinations as applicable) at the end of each semester.

The theory / practical examinations of all the Semesters shall be held as per the following Schedule:-

Sr.No.	Name of the Examination	End Semester Examination	Supplementary Examination*
1	Semester - I, III, V, VII & IX	Winter	Summer
2	Semester - II, IV, VI ,VIII & X	Summer	Winter

* The University may evolve mechanism for conducting repeat end semester examination. Such repeat examinations shall have to be conducted within one month of the regular even semester examination and on demand examination.

1. The practical examination of all semesters shall be conducted by the University at the end of each semester. The University shall conduct the Practical examination of all semesters as per the schedule announced by the University by appointing external and internal examiners.
2. The examinations specified above shall be held twice in a year at such places and on such dates as may be prescribed by the University.
3. An applicant to an examination specified above, shall pursue a regular course of study in courses prescribed for the examination concerned for not less than one semester in a particular semester in a College/ Institute/University department.
4. Provided that the student shall be eligible to appear for examination if -
   a. He/she complies with the provisions of the Ordinance pertaining to the Examination in general from time to time.
   b. He/she has prosecuted a regular course of study in a university department/college affiliated to the University.
   c. He/she has in the opinion of the Principal shown satisfactory progress in his/her studies.
5. The provisions of Ordinance No. 6 and Ordinance No. 9 shall be mutatis-mutandis applicable to every collegiate/non collegiate student.
6. The fees for each theory examination and practical examination conducted by the university shall be as prescribed by the University, from time to time.

17.0 COMPUTATION OF SGPA AND CGPA:

Letter Grades and Grade Points:

Computation of SGPA and CGPA shall be on the basis of Credits prescribed to Courses and Grade Points obtained by the student based on scale as mentioned in **Table – 4**:

TABLE 4: LETTER GRADES AND GRADE POINTS:

Semester GPA/ Program CGPA Semester/Program	% of Marks	Alpha-Sign / Letter Grade Result	Grade Point
9.00-10.00	90.0-100	O (Outstanding)	10
8.00 - <9.00	80.0 - <90.0	A+ (Excellent)	9
7.00 - <8.00	70.0 - <80.0	A (Very Good)	8
6.00 - <7.00	60.0 - <70.0	B+ (Good)	7
5.50 - <6.00	55.0 - <60.0	B (Above Average)	6
5.00 - <5.50	50.0 - <55.0	C (Average)	5
4.00 - <5.00	40.0 - <50.0	P (Pass)	4
Below 4.00	Below 40.0	F (Fail)	0
Ab (Absent)	-	Ab	0

Computation of SGPA and CGPA:

The Semester Grade Point Average (SGPA) is computed from the grades as a measure of the student's performance in a given semester. The SGPA is based on the grades of the current term, while the Cumulative Grade Point Average (CGPA) is based on the grades in all courses taken after joining the programme of study.

Semester Grade Point Average (SGPA): The SGPA is the ratio of the 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.

$$SGPA\ (Si) = \sum(Ci \times Gi) / \sum Ci$$

Where Ci is the number of Credits of the ith course and Gi is the grade point scored by the student in the ith course.

Example for Computation of SGPA:

Semester	**Course**	**Credit**	**Letter Grade**	**Grade point**	**Credit Point (Ci x Gi)** (Credit x Grade)
I	Course 1	2	A	8	2 X 8 = 16
I	Course 2	2	B+	7	2 X 7 = 14
I	Course 3	2	B	6	2 X 6 = 12
I	Course 4	2	O	10	2 X 10 = 20
I	Course 5	2	C	5	2 X 5 = 10
I	Course 6	2	B	6	2 X 6 = 12
		12			
SGPA					84/12 = **7.00**

Computation of CGPA:

The Cumulative Grade Point Average (CGPA) is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$CGPA = \sum(Ci \times Si) / \sum Ci$$

where Si is the SGPA of the ith semester and Ci is the total number of Credits in that semester.

The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

18.0 EQUIVALENCE OF THE CONVENTIONAL DIVISION / CLASS:

Equivalence of the conventional division/class to the corresponding C.G.P.A. in final semester shall be in accordance with the **Table No. 5** as given below:

Table 5: Equivalence of Class/Division to C.G.P.A.

Sr. No.	**C.G.P.A.**	**Class/Division**
1.	7.5 or more than 7.5	First Class with Distinction
2.	6.00 or more but less than or equal to 7.49	First Class
3.	5.00 or more but less than or equal to 5.99	Second Class
4.	4.00 or more but less than or equal to 4.99	Pass

19.0 DECLARATION OF RESULTS:

1. **Result Declaration**: The results for the Five Years MCA Integrated Programme shall be prepared as per the Scheme of teaching, learning, examination & evaluation of the Programme. The computation of SGPA & CGPA shall be as per Sr.No. 17 of this Direction.

2. A student obtaining Grade F shall be considered failed and will be required to reappear in the examination. Based on the above recommendations on Letter grades, grade points and SGPA and CGPA, the University shall issue the transcript for each semester and a consolidated transcript indicating the performance in all semesters.

20.0 AWARD OF DEGREE:

A student pursuing Five Years MCA Integrated Programme shall be awarded an appropriate degree in Core Subject on completion of X Semester with the minimum of 212 Credits.

21.0 RE-ENTRY OR LATERAL ENTRY:

i. Students, opting for exits at any level, will have the option to re-enter the programme from where they had left off, in the same or in a different higher education institution within Five Years of exit and complete the degree programme within the stipulated maximum period of Ten Years from the date of admission to first year.

ii. Re-entry at various levels for lateral entrants in academic programmes shall be based on the earned and valid Credits as-deposited and accumulated in the Academic Bank of Credits (ABC) through Registered Higher Education Institutions (RHEI) and proficiency test records. Lateral entry into the programme of study leading to the Five Years Integrated MCA Course Degree shall be as per the directions given by the AICTE / DTE, Government of Maharashtra from time to time.

iii. An unsuccessful examinee at any of the above examination shall carry college assessment marks (Sessional Marks) of the theory/Practical examination to the successive attempt at the examination. The examinee however can go for his/her college assessment marks in the subject or subjects in which he/she shall be examined for total marks comprising of theory and sessional together at his/her successive attempts.

A student who could not complete a semester satisfactorily or did not keep term will be eligible for readmission to the same semester. However, readmission to the semester should be allowed only in regular session of that semester. In such case, the candidate will not be eligible to get admission in higher semester.

22.0 GENERAL PROVISIONS:

1. Record of student's Performance cum Evaluation (containing attendance, concept knowledge, intellectual/ decision making ability, handling skill, sense of responsibility, cooperative/leadership quality, presentation / demonstration) related to Internships/ Apprenticeship, Mini-Project, Field Projects /Studio Activities, Community Engagement and Services, etc. shall be maintained by the college/institute/university department.

2. For allotment of Internships/Apprenticeship, Mini-Project, Field Projects /Studio Activities, Community Engagement and Services, etc., the College/ Institute/University Department shall follow Standard Operating Procedures (SOP) with concerned College/Institute/University Department/ Organization/ Industry on the basis of Memorandum of Understanding (MoU) /Letter of Intent and Joining letter. Further, for validation, progress records, Evaluation Sheet etc. shall be maintained by the College/ Institute/ University Department.

3. For award of Credits to Co-curricular Courses: Health and wellness, Yoga Education, Sports and Fitness, Cultural Activities, NSS/NCC, Fine/Applied/Visual/Performing Arts, Academic Activities like paper presentations in conferences, Avishkar, start-ups, Hackathon, Quiz competitions, Article published, Participation in Summer school/ Winter School / Short term course, Scientific Surveys, Societal Surveys, Field Visits, Study tours, Industrial Visits, online/offline Courses on Yoga (Yoga for IQ development, Yoga for Ego development, Yoga for Anger Management, Yoga for Eyesight Improvement, Yoga for Physical Stamina, Yoga for Stress Management, etc.); the college/ Institute / university department should maintain a record of the student.

4. As per Maharashtra Public Universities Act, 2016, Section 89 Chapter VIII, the results of every examination and evaluation conducted by the University will be declared within thirty days from the last date of examination for that particular course and in any case declare the results latest within forty-five days. The names of the examinees passing the examination as a whole in the minimum prescribed period and obtaining the prescribed number of places in the CGPA shall be arranged in order of merit as provided in the examination in general Ordinance no. 6 provided that the merit list only be published in summer examination.

5. An examinee who has completed the term satisfactorily but fails to present himself/herself for the examination shall be eligible for re-admission to the same examination, on payment of fresh fees and other fees as may be prescribed by the university from time to time.

6. Examinations will be conducted in Offline mode in accordance with Ordinance No.9.

7. Provisions of Ordinance No18/2001 in respect of an Ordinance to provide grace marks for passing in a Head of passing and Improvement of Division (Higher Class) and getting Distinction in the subject and condonation of deficiency of marks in a subject shall apply to the examination under this Direction.

8. The Subject Codes allocated for Five Years Integrated MCA course shall be as per the Scheme of teaching, learning, examination & evaluation**.**

9**. Power to modify and remove difficulties:**

(a) Notwithstanding anything contained in the foregoing, Hon'ble Vice-Chancellor in consultation with the Dean of the faculty shall have the power to issue directions or orders to remove any difficulty,

(b) Nothing in the foregoing may be construed as limiting the power of the University to amend, modify or repeal any or all of the above.

23.0 NEP IMPLEMENTATION CELL:

A) University Level:

There shall be NEP working committee in the University comprising of the following members:

1. Pro-Vice Chancellor-Member
2. Deans of all faculties-Members
3. Two Experts not below the rank of Professors - Member nominated by the Honorable Vice-Chancellor
4. IQAC Coordinator- Member- Secretary.

B) University Department Level:

There shall be NEP working committee in each university department comprising of the following members:

1. Head of the University Department-Chairman
2. One representative of the University Dept Student Council -Member
3. One Teacher of the Department nominated by Honorable Vice-Chancellor-Member Secretary

C) College Level:-

There shall be a NEP working committee in each affiliated college comprising of the following members:-

1. Principal -Chairman
2. HoDs of Teaching Departments of a College- Members
3. One representative of the College Student Council - Member
4. IQAC Coordinator- Member- Secretary.

Powers and Duties of the NEP working committee:

1. Committee shall take review of the Implementation of the NEP after completion of every Semester
2. The committee shall report to the University about difficulties faced during the implementation of the NEP.
3. The committee should also consider the grievances of the students regarding the difficulties/disadvantages put to them, if any, during their studies under NEP.
4. For college level and university level, the committee will also be a Grievance Redressal Committee for implementation of NEP.
5. The committee may consider any other matter in the interest of the students as far as the NEP is concerned.

24.0 DRAFT SPECIMEN CURRICULUM DESIGN:

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
4.5	I		Mathematics - I	4	60	3 Hrs.	60

25.0 GLOSSARY OF THE TERMS:

 Academic Credit: An academic Credit is a unit by which the course work (theory/ practical/ training) is measured. Each course may be allotted Credits in proportion to the time expected to be devoted by the student for that course. Thus, it determines the number of hours of instructions required per week. One Credit means the standard methodology of calculating one hour of theory or one hour of tutorial or two hours of laboratory work or one week of internship per week for a duration of a semester (13-15 weeks) resulting in the award of one Credit; which is awarded by a higher educational institution on which these regulations apply.

 Academic Bank of Credits (ABC): ABC is an academic service mechanism as a digital/virtual/online entity established and managed by MoE/UGC to facilitate students to become its academic account holders and paving the way for seamless student mobility between or within degree granting Higher Education Institutions (HEIs) through a formal system of Credit recognition, Credit accumulation, Credit transfers and Credit redemption to promote distributed and flexible teaching learning.

 Academic Year: Two consecutive (one odd + one even) semesters constitute one academic year.

 Assessment: It is the process of collecting, recording, scoring, describing and interpreting information about learning

 Academic Flexibility: It is the provision for innovative and interchangeable curricular structures to enable creative combinations of Courses/Programmes in Disciplines of study leading to Degree/Diploma/PG Diploma/Certificate of Study offering multiple entry and multiple exit facilities in tune with National Education Policy-2020, while removing the rigid curricular boundaries and creating new possibilities of life-long learning.

 Affiliated College: It implies any higher education institution approved by the affiliating university on the basis of the stipulated norms and guidelines by virtue of which it provides for a course/programme of study for obtaining any qualification from a university.

 Autonomous College: It means any institution, whether known as such or by any other name accorded with autonomous status by the UGC upon the recommendations of the affiliating university and the State Government concerned, by virtue of which it provides for a course/programme of study with academic and innovation flexibility for obtaining any qualification from a university and which, in accordance with the Rules and Regulations of such university, is recognized as competent to provide for such course/programme of study and present students undergoing such course/programme of study for the examination leading to the award of such qualification.

 Choice Based Credit System (CBCS): The CBCS provides choice for students to select from the prescribed courses (core major, electives, minor, soft skill courses etc.)

 Code: Each course shall bear a distinguishing code (three letters and three digits) that identifies the discipline from which it is being offered.

 Conventional Mode of Learning: It means a mode of providing learning opportunities through face to face interaction between the teacher and learner in regular class room environment but does not exclude supplementary instructions if any for the learner through use of online.

 Core or Major Course: A course, which should compulsorily be studied by the student as a requirement of core or major subject is termed as a Core Course.

 Course: A basic unit of education and/or training. It means a paper which is taught for at least one semester as a part of a subject and is a component of a Programme. All courses need not carry the same weightage. A collection of courses forms a Programme of study.

 Credit Point: It is the product of grade point and number of Credits for a course.

 Cumulative Grade Point Average (CGPA): Weighted average of the grade points obtained in all courses registered by the student across semesters.

 Elective Course: Generally, a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill is called an Elective Course.

Evaluation: It is the process of making judgments based on evidences and interpretations gathered through examination and assessment and on the basis of agreed upon criteria.

 Foreign Higher Educational Institution: It represents a Higher Educational Institution duly established or incorporated or recognized in a foreign country and offering academic and research programmes at the undergraduate and/or higher levels.

 Generic Elective (GE) or Open Elective (OE) Course: An elective course chosen generally from an unrelated discipline/subject, with an intention to seek multidisciplinary exposure is called a Generic Elective.

 Grade Point: Numeric weightage attached to each letter grade.

 Grade Point Average (GPA): A system of calculating academic achievement based on an average, calculated by multiplying the numerical grade point received in each course by the number of Credits.

 Graduate Attributes (GAs): It is a set of individually assessable outcomes that are indicative of the graduate's potential to acquire competencies in that programme.

 Higher Education Institutions: The Higher Education Institutions (HEIs) who are empowered to award degrees by themselves or through their affiliating universities m accordance with Section 22 of the UGC Act, 1956.

 Lateral Entry: Lateral entry or admission is granted to those students who have exit after award of Certification, Diploma, or a Basic Bachelor's Degree and are eligible for and desirous of re-entering into the second year/ third year/ fourth year, respectively of same Four-year multidisciplinary degree programme at any ABC registered HEI within stipulated/ permissible period of years as decided by Statutory Councils of that HEI. Lateral entry is also open to those students, if he/she has already successfully completed a multidisciplinary Four-year first degree programme and is desirous of and academically capable of pursuing another multidisciplinary Four-year first degree programme an allied subject.

 Learning Management System (LMS): It means a system to keep track of delivery of e-Learning Programmes, learner's engagement, assessment, results, reporting and other related details in one centralized location

 Learning Outcome Based Education (LOBE): Adherence to student-centric learning approach to measure student's performance based on pre-determined set of outcomes.

 Letter Grade: Index of performance resulting from the transformation of actual marks obtained by a student in a course.

 Major Courses: The discipline in which the student shall pursue major study in his/her Undergraduate/Master's Programme.

 Proctored Examination: It means the examination conducted under the supervision of approved person or technology enabled proctoring which ensures the identity of the test taker and the integrity of the test taking environment, either in pen-paper mode or in computer-based testing mode or in full-fledged online mode, as may be permissible.

- Programme: Programme /Programme of study means a higher education programme pursued for a degree specified by the Commission under Section 22 (3) of the UGC Act. It also refers to a collection of courses in which a student enrolls and which contributes to meeting the requirements for the awarding of one or more Certificates/ Diplomas/ Degrees.

- Programme Education Objectives (PEOs): PEOs are broad statements that describes what graduates are expected to attend within few years of graduation.

- Programme Learning Outcomes (PLOs): They represent the knowledge, skills and attitudes a student should attain at the end of the programme.

- Qualifications: Qualifications are final 'awards' such as a Certificate, Diploma or Degree.

- Qualifications are awarded by a competent authority such as a college or university in recognition of the attainment by students of the expected learning outcomes on the successful completion of a particular programme of study. Qualifications can also signify the competence to follow an occupational practice.

- Research Project/ Dissertation: Project work is considered as a special course involving application of knowledge in solving / analyzing /exploring a real-life situation / difficult problem. The student undertakes research in specific areas of his Major/ Core Subject with an advisory support by a teacher/faculty member.

- Rubric (Assessment Rubric): A rubric for assessment, also called a scoring guide, is a tool used to interpret and grade students on any kind of work against criteria and standards.

- Semester Grade Point Average (SGPA): Performance of a student in a given semester.

25.1: LIST OF ABBREVIATIONS AS PER GLOSSARY SR. NO. 25.0:

ABC	Academic Bank of Credit
AEC	Ability Enhancement Courses
CC	Co-curricular Courses
CAT	Continuous Assessment Test
CES	Community Engagement and service
DSC	Department Specific Core
DSE	Department Specific Elective
ES	Environment Studies
FSE	Faculty Specific Elective
FP	Field projects
GE	Generic Electives
HEI	Higher Educational Institute
IFSC	Inter Faculty Specific Core
IKS	Indian Knowledge System
Lab	Laboratory
MIL	Modern Indian Language
MOOC	Massive Online Open Course
NCrF	National Credit Framework
NEP	National Education Policy
OE	Open Electives
OJT	On Job Training
Pr	Practical/Practicum
Prq	Pre-requisite Course
RM	Research Methodology

RP	Research Project
SEC	Skill Enhancement Courses
Th	Theory
UGC	University Grants Commission
VEC	Value Education Courses
VEC	Vocational Enhancement Courses
VSC	Vocational Skill Courses
VSEC	Vocational and Skill Enhancement Courses

Sd/-
Date: 16 /05/2025 (Dr.Milind Barhate)
Vice-Chancellor

Sant Gadge Baba Amravati University, Amravati

Appendix - A

Scheme Of Implementation for

FIVE YEAR Integrated Master Of Computer Application

Programme in Engineering and Technology

Integrated Master Of Computer Application Programme

In the faculty of

Science and Technology

ACADEMIC EVALUATION SCHEME/CREDITSYSTEM

Year: 2024-2025

(Scheme Of Teaching, Learning and Examination Evaluation w.e.f.2024-2025 and onwards)

Scheme for First Year of Five Year Integrated MCA Degree Programme
Semester-I

SN	Course Name	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				Practical (Total)		ESE Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Computer Fundamental	**1IMC101**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
2	C Programming	**1IMC102**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
3	Web Development	**1IMC103**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
4	Statistics for Data Science-I	**1IMC104**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
Laboratory Courses																				
5	Computer Fundamental Lab	**1IMC105**	0	2	0	2	1							25	10	25	10	50	25	
6	C Programming Lab	**1IMC106**	0	2	0	2	1							25	10	25	10	50	25	
7	Web Development-Lab	**1IMC107**	0	2	0	2	1							25	10	25	10	50	25	
8	Statistics for Data Science-I Lab	**1IMC108**	0	2	0	2	1							25	10	25	10	50	25	
Vocational and Skill Enhancement Courses (VSEC)																				
9	Digital Marketing(VSEC-I)-Lab	**1IMC109VS**	1	2	0	3	2							-	-	50	25	50	25	
Indian Knowledge System (IKS)																				
10	Indian Knowledge System	**1IMC110K**	0	0	2	2	2							-	-	50	25	50	25	
Ability Enhancement Courses (AEC)																				
11	Professional Communication - I	**1IMC111AE**	3	0	0	3	2	**30**	**9**	**20**	**6**	50	20							2 Hrs
	TOTAL		16	10	2	28	**22**					**450**	**180**					**300**	**150**	

Scheme for First Year of Five Year Integrated MCA Degree Programme
Semester-II

SN	Course Name	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				Practical (Total)		ESE Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Computer Architecture & Organization	**2IMC101**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
2	Fundamentals of Electronics and Microprocessors	**2IMC102**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
3	C++ Programming	**2IMC103**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
4	Statistics for data science -II	**2IMC104**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
Laboratory Courses																				
5	Fundamentals of Electronics and Microprocessors	**2IMC105**	0	2	0	2	1							25	10	25	10	50	25	
6	C++ Programming-Lab	**2IMC106**	0	2	0	2	1							25	10	25	10	50	25	
7	Statistics for data science -II	**2IMC107**	0	2	0	2	1							25	10	25	10	50	25	
8	Linux Lab	**2IMC108**	0	2	0	2	1							25	10	25	10	50	25	
Vocational and Skill Enhancement Courses (VSEC)																				
9	Computer Hardware & Networking (VSEC-II)	**2IMC109VS**	3	0	0	3	2							-	-	50	25	50	25	
Ability Enhancement Courses (AEC)																				
10	Professional Communication - II	**2IMC110AE**	3	0	0	3	2	**30**	**9**	**20**	**6**	50	20							2 Hrs
Co-curricular Course (CC)																				
11	Co-curricular Course (CC)	**2IMC111CC**	2	0	0	2	2							-	-	50	25	50	25	3 Hrs
	TOTAL		20	8	0	28	**22**					**450**	**180**					**300**	**150**	

Co-curricular Course (CC): - Intellectual Property Rights |Indian Constitution |Financial Literacy (Choose Any One)

Scheme for Multiple Entry and Exit

Exit Option-1: Award of UG Certificate in Major with 44 credits and an additional 8 credits of any one exit course mentioned below			
UG Certificate in Computer Application - Exit Courses			
1	Assembly & Maintenance of Personal Computer	Online/ offline certification course	8
2	Certificate Course on Office tools (Like Word Processing/Spreadsheet / Presentations etc.)		8
3	One Month Internship at IT Related Industry		8

Notse:

1. The above exit courses may or may not be offered /available to students during that academic session hence it is the discretion of the department/institute to evaluate the exit course by considering either certification courses for internship from IT related Registered Industry.
2. Students will have a choice to go for option 1 or option 2 or option 3 for the exit courses.

Scheme for Second Year of Five Year Integrated MCA Degree Programme
Semester-III

SN	Course Name	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				Practical (Total)		ESE Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Mathematical Foundation to Computer Science- I	3IMC201	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
2	JAVA Programming	3IMC202	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
3	Data Structures and Algorithm	3IMC203	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
4	Soft Computing	3IMC204	3	0	0	3	2	60	18	40	12	100	40							3 Hrs
Laboratory Courses																				
5	Mathematic Foundation to Computer Science Lab –I	3IMC205	0	2	0	2	1							25	10	25	10	50	25	
6	JAVA Programming	3IMC206	0	2	0	2	1							25	10	25	10	50	25	
7	Data Structures and Algorithm Lab	3IMC207	0	2	0	2	1							25	10	25	10	50	25	
8	Cryptography Lab	3IMC208	0	2	0	2	1							25	10	25	10	50	25	
9	Soft Computing-Lab	3IMC209	0	2	0	2	1							25	10	25	10	50	25	
Open Elective other than a particular Program																				
10	Open Elective-I	3IMC210OE	0	0	2	2	2							-	-	50	25	50	25	
HSSMC (Entrepreneurship/Economics/Management Course)																				
11	Entrepreneurship Development	3IMC2011HS	2	0	0	2	2							-	-	50	25	50	25	
Value Education Course (VEC)																				
12	Environmental Science	3IMC212VE	2	0	0	2	2	**30**	**9**	**20**	**6**	50	20							2hrs
	TOTAL		16	10	2	28	**22**					**450**	**180**					**350**	**175**	

L:Lecture	P: Practical	T: Tutorial	ESE:EndSemesterExam	IE:Internal Evaluation	INT: Internal	EXT:External

Open Elective I-

	The Open Elective and Credit Assigned	Credits
Open Elective: Each student shall complete 2 credits	Successful completion of Online Course of 4 weeks	2
	Project Activity	2
	Paper/poster presentation	2
	Completion of soft skill programme of one week	1
	Internship of 30 Hrs	2
	Field Visit of 15 Hrs	1
	Start-up recognized and approved by the department	2
	Participation in Unnat Bharat Abhiyan 1 for 5 days	1
	Yoga Meditation camp of 5 days	1
	Completion of course/activity of similar credits proposed by the department from among the	2
	Available courses/activities from other department/faculty in the college/university	

SN	Course Name Semester-IV	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				P (Total)		Part – I - 414 Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Mathematical Foundation to Computer Science- II	4IMC201	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
2	Operating System	4IMC202	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
3	Database Management System	4IMC203	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
4	Artificial Intelligence	4IMC204	3	0	0	3	2	60	18	40	12	100	40							3 Hrs
Laboratory Courses																				
5	Mathematic Foundation to Computer Science Lab –II	4IMC205	0	2	0	2	1							25	10	25	10	50	25	
6	Operating System –Lab	4IMC206	0	2	0	2	1							25	10	25	10	50	25	
7	Database Management System-Lab	4IMC207	0	2	0	2	1							25	10	25	10	50	25	
8	Artificial Intelligence- Lab	4IMC208	0	2	0	2	1							25	10	25	10	50	25	
Vocational and Skill Enhancement Courses																				
9	ASP.Net-I(VSEC-III)	4IMC209VS	1	2	0	3	2							25	10	25	10	50	25	3 Hrs
Open Elective other than a particular Program																				
10	Open Elective-II	4IMC210OE	0	0	2	2	2							-	-	50	25	50	25	3 Hrs
Value Education Course (VEC)																				
11	Universal Humans Values(UHV)	4IMC211VE	3	0	0	3	2	**30**	**9**	**20**	**6**	50	20							2hrs
	TOTAL		16	10	2	28	**21**					**450**	**180**					**300**	**150**	

L:Lecture	P: Practical	T: Tutorial	ESE:EndSemesterExam	IE:Internal Evaluation	INT: Internal	EXT:External

Open Elective II-

	The Open Elective and Credit Assigned	Credits
Open Elective: Each student shall complete 2 credits	Successful completion of Online Course of 4 weeks	2
	Project Activity	2
	Paper/poster presentation	2
	Completion of soft skill programme of one week	1
	Internship of 30 Hrs	2
	Field Visit of 15 Hrs	1
	Start-up recognized and approved by the department	2
	Participation in Unnat Bharat Abhiyan 1 for 5 days	1
	Yoga Meditation camp of 5 days	1
	Completion of course/activity of similar credits proposed by the department from among the	2
	Available courses/activities from other department/faculty in the college/university	

Scheme for Multiple Entry and Exit

Exit Option-1: Award of UG Certificate in Major with 44 credits and an additional 8 credits of any one exit course mentioned below			
UG Diploma in Computer Application - Exit Courses			
1	Assembly & Maintenance of Personal Computer	Online/ offline certification course	8
2	Certificate Course on Office tools (Like Word Processing/Spreadsheet / Presentations etc.)		8
3	One Month Internship at IT Related Industry		8

Notes:

1. The above exit courses may or may not be offered /available to students during that academic session hence it is the discretion of the department/institute to evaluate the exit course by considering either certification courses for internship from IT related Registered Industry.
2. Students will have a choice to go for option 1 or option 2 or option 3 for the exit courses.

Scheme for Third Year of Five Year Integrated MCA Degree Programme
Semester-V

SN	Course Name	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				Practical (Total)		ESE Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Data Communication & Networking	5IMC301	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
2	Client Server Computing	5IMC302	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
3	Software Engineering	5IMC303	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
4	Programme Elective Course-I	5IMC304	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
5	Multimedia Technology	5IMC305	3	0	0	3	2	60	18	40	12	100	40							3 Hrs
Laboratory Courses																				
6	Data Communication & Networking- Lab	5IMC306	0	2	0	2	1							25	10	25	10	50	25	
7	Client Server Computing Lab	5IMC307	0	2	0	2	1							25	10	25	10	50	25	
8	Multimedia Technology – Lab	5IMC308	0	2	0	2	1							25	10	25	10	50	25	
9	Programme Elective Course-I Lab	5IMC309	0	2	0	2	1							25	10	25	10	50	25	
Ability Enhancement Course (AEC)																				
10	Foreign Language	5IMC310AE	3	0	0	3	2	**30**	**9**	**20**	**6**	50	20							2 Hrs
Open Elective other than a particular Program																				
11	Open Elective-III	5IMC311OE	0	0	2	2	2							-	-	50	25	50	25	
	TOTAL		18	8	2	28	**22**					**550**	**220**					**250**	**125**	

Programme Elective Course –I : System Biology | Android Development | 3D Printing & Design(Choose any one)

L:Lecture	P: Practical	T: Tutorial	ESE:EndSemesterExam	IE:Internal Evaluation	INT: Internal	EXT:External

Open Elective III-

	The Open Elective and Credit Assigned	Credits
Open Elective: Each student shall complete 2 credits	Successful completion of Online Course of 4 weeks	2
	Project Activity	2
	Paper/poster presentation	2
	Completion of soft skill programme of one week	1
	Internship of 30 Hrs	2
	Field Visit of 15 Hrs	1
	Start-up recognized and approved by the department	2
	Participation in Unnat Bharat Abhiyan 1 for 5 days	1
	Yoga Meditation camp of 5 days	1
	Completion of course/activity of similar credits proposed by the department from among the	2
	Available courses/activities from other department/faculty in the college/university	

Scheme for Third Year of Five Year Integrated MCA Degree Programme
Semester-VI

SN	Course Name	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				Practical (Total)		ESE Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Advanced Database Management Systems	6IMC301	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
2	Introduction to Machine Learning	6IMC302	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
3	Program Elective Course-II	6IMC303	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
4	Program Elective Course-III	6IMC304	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
5	Computer Graphics	6IMC305	3	0	0	3	2	60	18	40	12	100	40							3 Hrs
Laboratory Courses																				
6	Advanced Database Management Systems Lab	6IMC306	0	2	0	2	1							25	10	25	10	50	25	
7	Introduction to Machine Learning- Lab	6IMC307	0	2	0	2	1							25	10	25	10	50	25	
8	Programme Elective Course-II-Lab	6IMC308	0	2	0	2	1							25	10	25	10	50	25	
9	Program Elective Course–III -Lab	6IMC309	0	2	0	2	1							25	10	25	10	50	25	
10	Computer Graphics-Lab	6IMC310	0	2	0	2	1							25	10	25	10	50	25	
Vocational and Skill Enhancement Courses																				
11	Sensors & Actuators (VSEC - IV)	6IMC311VS	2	0	0	2	2							-	-	50	25	50	25	
Ability Enhancement Course(AEC)																				
12	UNICEF and the Sustainable Development Goals	6IMC312AE	3	0	0	3	2	**30**	**9**	**20**	**6**	50	20							2 Hrs
	TOTAL		20	10	0	30	**23**					**550**	**220**					**300**	**150**	

L:Lecture	P: Practical	T: Tutorial	ESE:EndSemesterExam	IE:Internal Evaluation	INT: Internal	EXT:External

Programme Elective Course -II : Natural Language Processing | Big Data Analytics

Programme Elective Course -III : Data Warehousing & Mining | Image Processing

Scheme for Multiple Entry and Exit

Exit Option-1: Award of UG Certificate in Major with 44 credits and an additional 8 credits of any one exit course mentioned below			
UG Degree of Bachelor of Computer Application (Under Integrated Program) - Exit Courses			
1	Assembly & Maintenance of Personal Computer	Online/ offline certification course	8
2	Certificate Course on Office tools (Like Word Processing/Spreadsheet / Presentations etc.)		8
3	One Month Internship at IT Related Industry		8

Notes:

1. The above exit courses may or may not be offered /available to students during that academic session hence it is the discretion of the department/institute to evaluate the exit course by considering either certification courses for internship from IT related Registered Industry.
2. Students will have a choice to go for option 1 or option 2 or option 3 for the exit courses.

Scheme for Fourth Year of Five Year Integrated MCA Degree Programme
Semester-VII

SN	Course Name	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				Practical (Total)		ESE Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Software Testing	7IMC401	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
2	Data Analytics	7IMC402	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
3	Program Elective Course-IV	7IMC403	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
4	Program Elective Course-V	7IMC404	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
5	Digital Electronics	7IMC405	3	0	0	3	2	60	18	40	12	100	40							3 Hrs
Laboratory Courses																				
6	Software Testing - Lab	7IMC406	0	2	0	2	1							25	10	25	10	50	25	
7	Data Analytics - Lab	7IMC407	0	2	0	2	1							25	10	25	10	50	25	
8	Program Elective Course–IV Lab	7IMC408	0	2	0	2	1							25	10	25	10	50	25	
9	Digital Electronics - Lab	7IMC409	0	2	0	2	1							25	10	25	10	50	25	
Project																				
10	Project- (Research Base)	7IMC410EL	2	0	1	3	2							-	-	50	25	50	25	
	TOTAL		17	8	1	26	20					**500**	**200**					**250**	**125**	

Proramme Elective Course -IV : Block Chain Technology | Virtual & Augmented Reality |Graphics Design
Programme Elective Course-V : Optimization Technique |E-Commerce |Principal of Management and Organizational Behavior

L:Lecture	P: Practical	T: Tutorial	ESE:EndSemesterExam	IE:Internal Evaluation	INT: Internal	EXT:External

Programme Elective Course -VI : Automation Testing |IT Operations Automation Internet of Things
Programme Elective Course -VII : Modelling & Simulation | Animation & Movie Making |Introduction to CRM

Scheme for Fourth Year of Five Year Integrated MCA Degree Programme
Semester-VIII

SN	Course Name	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				Practical (Total)		ESE Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Data Security	8IMC401	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
2	Cloud Computing	8IMC402	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
3	Program Elective Course-VI	8IMC403	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
4	Program Elective Course-VII	8IMC404	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
5	R-Programming	8IMC405	3	0	0	3	2	60	18	40	12	100	40							3 Hrs
Laboratory Courses																				
6	Data Security LAB	8IMC406	0	2	0	2	1							25	10	25	10	50	25	
7	Cloud Computing - Lab	8IMC407	0	2	0	2	1							25	10	25	10	50	25	
8	Programme Elective Course-VI-Lab	8IMC408	0	2	0	2	1							25	10	25	10	50	25	
9	Programme Elective Course-VII-Lab	8IMC409	0	2	0	2	1							25	10	25	10	50	25	
10	R-Programming Lab.	8IMC410	0	2	0	2	1							25	10	25	10	50	25	
Vocational and Skill Enhancement Courses																				
11	Data Recovery (VSEC -IV)	8IMC411VS	2	0	0	2	2							-	-	50	25	50	25	3 Hrs
(Ability Enhancement Course(AEC)																				
12	Indian Traditional Knowledge-II	8IMC412K	3	0	0	3	2	**30**	**9**	**20**	**6**	50	20							2 Hrs
	TOTAL		16	12	01	29	**23**					**550**	**220**					**300**	**150**	

L:Lecture	**P: Practical**	**T: Tutorial**	**ESE:EndSemesterExam**	**IE:Internal Evaluation**	**INT: Internal**	**EXT:External**

Programme Elective Course -VI : Automation Testing |IT Operations Automation Internet of Things
Programme Elective Course -VII : Modelling & Simulation | Animation & Movie Making |Introduction to CRM

Scheme for Multiple Entry and Exit

Exit Option-4:Award Degree (Honors)inMajor with178 credits and an additional 8 credits of any one exit course mentioned below			
P.G.Diploma in Computer Application (Under Integrated Program) - Exit Courses			
1	IT Security and Privacy Research	Online/ offline certification course	8
2	Research Methodologies in IT		8
3	One Month Internship at IT Related Industry		8

Notes:

1. The above exit courses may or may not be offered /available to students during that academic session hence it is the discretion of the department/institute to evaluate the exit course by considering either certification courses for internship from IT related Registered Industry.
2. Students will have a choice to go for option 1 or option 2 or option 3 for the exit courses.

Scheme for Fifth Year of Five Year Integrated MCA Degree Programme
Semester-IX

SN	Course Name	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				Practical (Total)		ESE Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Cyber Security & Digital Forensic	**9IMC501**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
2	Program Elective Course-VIII	**9IMC502**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
3	Program Elective Course-IX	**9IMC503**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
4	Programme Elective Course -X	**9IMC504**	3	0	0	3	3	60	18	40	12	100	40							3 Hrs
5	Robotics	**9IMC505**	2	0	0	2	2	60	18	40	12	100	40							3 Hrs
Laboratory Courses																				
6	Cyber Security & Digital Forensic - Lab	**9IMC506**	0	2	0	2	1							25	10	25	10	50	25	
7	Program Elective Course–VIII Lab	**9IMC507**	0	2	0	2	1							25	10	25	10	50	25	
8	Program Elective Course–IX Lab	**9IMC508**	0	2	0	2	1							25	10	25	10	50	25	
9	Robotics Lab	**9IMC509**	0	2	0	2	1							25	10	25	10	50	25	
Project																				
10	Project (Application Base)	**9IMC510EL**	0	4	1	5	4							-	-	50	25	50	25	
	TOTAL		14	12	1	27	**22**					**500**	**200**					**250**	**125**	

Programme Elective Course -VIII : UI/UX Design | Machine Learning in Biomedical and Health Informatics
Programme Elective Course-IX : Data Visualization and Business Intelligence |Full Stack Web Development
Programme Elective Course -X : Project Management | Introduction to Quantum Computing

L:Lecture	**P: Practical**	**T: Tutorial**	**ESE:EndSemesterExam**	**IE:Internal Evaluation**	**INT: Internal**	**EXT:External**

Scheme for Fifth Year of Five Year Integrated MCA Degree Programme (P.G. Degree in Master of Computer Application – Under Integrated Program)
Semester-X

SN	Course Name	Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Theory (Total)		Practical Evaluation				Practical (Total)		ESE Time (Hours)
								External		Internal				External		Internal				
			L	P	T	Hrs.		Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks	
Core Courses																				
1	Research Methodology	10IMC501	2*	0	0	2	2							-	-	50	25	50	25	
2	Industry Internship	10IMC502	0	0	0	0	9							200	60	100	30	300	120	
3	Seminar	10IMC503	0	0	0	0	4							-	-	100	40	100	40	
	TOTAL		2	0	0	2	**15**											**450**	**185**	

L:Lecture	**P: Practical**	**T: Tutorial**	**ESE:EndSemesterExam**	**IE:Internal Evaluation**	**INT: Internal**	**EXT:External**

***The course on Research Methodology may be completed by the student in Online mode (Swayam, MOOC's, any other platform approved by AICTE or on the LMS platform offered by the Institute).**

Note: - About 'Proramme Elective Course'- 40 % can be done through online courses like Swayam, MOOC's, any other platform approved by AICTE or on the LMS platform offered by the Institute).

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SEM I	SEM III	SEM V	SEM VII	SEM IX
T - 450 / 180	T - 450 / 180	T - 550 / 220	T - 500 / 200	T - 500 / 200
P - 300 / 150	P - 350 / 175	P - 250 / 125	P - 250 / 125	P - 250 / 125
SEM II	**SEM IV**	**SEM VI**	**SEM VIII**	**SEM X**
T - 450 / 180	T - 450 / 180	T - 550 / 220	T - 550 / 220	P - 450 / 185
P - 300 / 150	P - 300 / 150	P - 300 / 150	P - 300 / 150	

(I,II,III Yr)	(IV, V Yr)	(All FIVE Yr)
T - 2900 / 1160	T - 1550 / 620	T - 4450 / 1780
P - 1800 / 900	P - 1250 / 585	P - 3050 / 1485
Total - 4700 / 2060	**Total - 2800 / 1205**	**Total - 7500 / 3265**