DIRECTION

No. 56/2024. Date :- 22/08 /2024

Subject : Examinations leading to the Diploma in Cyber Security Course [One Year Two Semesters Course – Choice Based Credit System] in the Faculty of Science & Technology.

Whereas, Maharashtra Public University Act, 2016 under Section 5(15) has prescribe provision for Diploma/Certificate,

AND

Whereas, Maharashtra Public University Act, 2016, under Section 5(16) has been incorporated the Choice Based Credit System,

AND

Whereas, Maharashtra Public University Act, 2016, under Section 5(20) has institute the Post-Graduate Diploma and its conferment under Section 5(22) ,

AND

Whereas, By taking into consideration exigency regarding preparation of syllabi and Scheme of Teaching, Learning, Examination and Evaluation, the joint Committee of Board of Studies in Computer Science (Computer Application and Computer Science (Computer Software), Computer Science and Engineering and Information Technology has been constituted.

AND

Whereas, meetings of the Joint Committee was held on 01/03/2024 and 05/03/2024 for finalizing the Scheme of Teaching, Learning, Examination and Evaluation of the said programme and resolved unanimously that, the Baord of Study in Computer Science (Computer Application and Computer Science (Computer Software) will prepare the Syllabi,

AND

Whereas, the Board of Study in Computer Science (Computer Application and Computer Science (Computer Software) in its meeting dated 04/05/2024 has resolved to institute the said Degree as per Section 33(f) and 31(s) of Maharashtra Public Universities Act, 2016,

AND

Whereas, the Management Council vide its Item No. 117 dated 14/06/2024 has given approval for the institution of said Diploma,

AND

Whereas, the Board of Study in Computer Science (including Computer Application and Computer Science) (Computer Software) has prepared the Draft Syllabi and Teaching, Learning, Examination and Evaluation Scheme of the said programme and recommend the same to the Faculty of Science and Technology vide Item No. 40 and 41,

AND

Whereas, the Faculty of Science and Technology in its meeting dated 09/07/2024 has approved the recommendation of the Board of Study in Computer Science (including Computer Application and Computer Science) (Computer Software) and recommend it to the Academic Council,

AND

Whereas, Hon'ble Vice-Chancellor has approved the recommendation of the Faculty of Science and Technology pertaining to the Item No. 40 and 41 under sub section (7) of Section 12 on behalf of the Academic Council on 12/07/2024,

AND

Whereas, the said programme is to be implemented from the Academic Session 2023-2024 and the Choice Based Credit System has been implemented from the Academic Session 2022-2023 to all the U.G.C. approved under Graduate and Post Graduate Courses and hence this programme also is to be governed by this system,

AND

Whereas, Maharashtra Public Universities Act, 2016 under section 33(c) provides for Choice Based Credit System for all certificates, diplomas, Degrees, post-graduate programmes and other academic distinctions,

AND

Whereas, Maharashtra Public Universities Act, 2016 under section 33(v) states that the Academic Council has to create policy, procedure and practice for Choice Based Credit System for all Academic programmes,

AND

Whereas, the Scheme of Teaching, Learning, Examination and Evaluation of Semester I to II of the programme of Diploma in Cyber Security is to be regulated by issuing an Ordinance/Regulation,

AND

Whereas making an Ordinance/Regulaton is a time consuming process.

Now, therefore I, Dr. Milind Barhate, Vice-Chancellor, Sant Gadge Baba Amravati University, Amravati in exercise of powers conferred upon me under Sub-section (8) of Section 12 of the Maharashtra Public Universities Act, 2016 do hereby direct as under :-

1. (i)This Direction may be called, "Examinations leading to the Diploma in Cyber Security One year – Two Semesters Course) under Choice Based Credit System Direction, 2024.
   ii)The Diploma in Cyber Security shall belong to the Faculty of Science and Technology.
2. This Direction shall come into force from the Academic Session as follows :-
   i) Semester I and II – from the Academic Session 2023-2024.
3. The provisions of directions, eligibility criteria and other details are as follows and the Scheme of Teaching, Learning, Examination and Evaluation of Semester – I to II are appended herewith vide Annexure 1 to 2.
4. The Duration of each semester of the new Course Diploma in Cyber Security shall be of six months.
5. Following shall be the Examinations leading to the Diploma in Cyber Security namely:
   (i) Diploma in Cyber Security Semester I and
   (ii) Diploma in Cyber Security Semester II.
6. (i) The examination specified in paragraph 5 above shall be held twice in a year and at such places and on such dates as may be appointed by the University.
   (ii) Main Examination of Semester I shall be held in Winter and Supplementary Examination shall be held in Summer.
   (iii) Main Examination of Semester II shall be held in Summer and Supplementary Examination shall be held in Winter.
7. **Eligibility Criteria for Admission**:

   The candidate who has passed 12th Standard examination of Maharashtra State Board of Secondary and Higher Secondary Education with Mathematics or +2 level Higher Secondary Vocational Certificate (H.S.V.C.) in Electronic Technology or Computer Technology or an examination equivalent thereto.

   Programme Educational Objectives :- (P.E.Os)
   1. Candidate will be equipped for entry level professions in Cyber Security or related businesses.
   2. Candidates will exhibit the ability to engage in life long learning and adapt to changing Technology and challenges in the Cyber Security domain.
   3. Candidates will demonstrate strong professional ethics, effective communication skills and the capacity to collaborate in different groups.
   4. Candidates will have the analytical and critical thinking abilities necessary to effectively identify, analyze and resolve Cyber Security concerns.

   Programme Outcomes (POs):

   After undergoing this programme, students would be able to:
   - Demonstrate understanding of fundamental concepts, principals and practices in Cyber Security.
   - Apply techniques to secure information systems, protect Data and mitigate cyber security risks.
   - Implement measures to secure network infrastructures and defend against network based attacks..
   - Identify and analyze Cyber Threats, vulnerabilities and incidents to proactively protect systems and Networks.
   - Recognize ethical, legal and regulatory issues related to Cyber Security and adhere to professional codes of conduct.
     .

   Career Opportunities: After successful completion of this programme, the learners may choose their career as: Cyber Security Consultants, Cyber Security Analyst, Systems and Networks Security Professional, IT Security Officer, IT Infrastructure Analyst, Quality and Security Analyst, Service Division (IT enabled services, maintenance service and installation of computer services), Software Development and Testing Industries, Web Development and Testing Industries, Mobile Applications Development and Testing Industries, Cloud Services Support Engineer, Telecommunication Sector, Defense Services/Police Services/Cyber Services/Forensic Services, Network/Application Security Analyst, Cyber Security Analyst, Cyber Security Analyst, Security Automation, Cyber Security Practitioner, Cyber Defense Analyst, Penetration Tester, Information Security Engineer in leading IT Industries and to act as Cyber Security Experts in the Governmental Organizations, etc.
8. For purposes of instruction and examinations the students shall study sequentially.
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 Examinations in General) in force from time to time, the student for admission, at the end of the course of study of a particular term shall be eligible to appear at it, if,

    i) the student satisfied the condition in the table and the provision there under.

TABLE – I

Sr. No	Name of Examination	The student should have completed the Session / term satisfactorily
1	**2**	**3**
1	Diploma in Cyber Security - Semester I	Semester I
2	Diploma in Cyber Security - Semester II	Semester II

(**Note**: Subjects prescribed and numbered in the Scheme of Examination shall be treated as separate subjects.

However, the Theory and Practical, if any, of the subject shall be treated as separate Head of Passing.)

ii) the student has compiled with the provisions of Ordinance pertaining to Examination in general.

iii) the student has prosecuted a regular course of study in the University Department /College affiliated to the University.

iv) the student has in the opinion of the Head of the Department/Principal shown satisfactory progress in his / her studies.

11. Papers and the practicals in which an examinee is to be examined, maximum marks for these and the minimum pass marks which an examinee must obtain in order to pass in the subject and the examination are detailed in the Examination Scheme.

12. Examination fees for each part of the examination and also the Practical examination shall be as prescribed by the University from time to time.

13. The Scheme of Teaching, Learning, Examination & Evaluation shall be as per "**Appendix-A**" appended with this Direction.

14. i) The scope of the subject is as indicated in the syllabus.
ii) The medium of instruction and examination shall be English.

15. The fees for each part of the Examinations (Theory & Practical) shall be as prescribed by University from from time to time.

16. The computation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA of an examinee shall be as given below :-

The marks will be given in all examinations which will include college assessment marks and the total marks for each Theory / Practical shall be converted into Grades as per **Table II**.
SGPA shall be calculated based on Grade Points corresponding to Grade as given in Table II and the Credits allotted to respective Theory / Practical shown in the scheme for respective Semester.

SGPA shall be computed for Semester I & II and CGPA shall be computed in Semester II based on SGPA of Semester I & II of P.G.D.C.S. Course. :-

SGPA = C1 x G1 + C2 x G2 + ... + Cn x Gn C1 + C2 + ... + Cn

Where C1 = Credit of individual Theory / Practical

G1 = Corresponding Grade Point obtained in the respective Theory / Practical

CGPA = (SGPA) I X (Cr) I + (SGPA) II X (Cr) II
(Cr) I X (Cr) II

Where (SGPA) I = SGPA of I Semester
(Cr) I = Total Credits for I Semester
(SGPA) II = SGPA of II Semester
(Cr) I = Total Credits for II Semester

CGPA equal to 6.00 and above shall be considered as equivalent to First Class which shall be mentioned on Grade Card of II Semester as a foot note.

TABLE II
THEORY

Grade	Percentage of Marks	Grade Points
AA	80 ≤ Marks ≤ 100	10
AB	70 ≤ Marks < 80	9
BB	60 ≤ Marks < 70	8
BC	55 ≤ Marks < 60	7
CC	50 ≤ Marks < 55	6
CD	45 ≤ Marks < 50	5
DD	40 ≤ Marks < 45	4
FF	00 ≤ Marks < 40	0
ZZ	Absent in Examination	---

PRACTICAL

Grade	Percentage of Marks	Grade Points
AA	85 ≤ Marks ≤ 100	10
AB	80 ≤ Marks < 85	9
BB	70 ≤ Marks < 80	8
BC	70 ≤ Marks < 75	7
CC	65 ≤ Marks < 70	6
CD	60 ≤ Marks < 65	5
DD	50 ≤ Marks < 60	4
FF	00 ≤ Marks < 50	0
ZZ	Absent in Examination	---

17. Provisions of Ordinance No.18 of 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 in all the faculties prescribed by the Direction No.15 of 2017 and Ordinance No. 18 of 2001 shall apply to each examination under this Direction.

18. An examinee who does not pass or who fails to present himself/ herself for the examination shall be eligible for readmission to the same examination, on payment of fresh fees and such other fees as may be prescribed.

19. As soon as possible after the examination, the Board of Examinations shall publish a result of the examinees. The result of the Examination of final Semester of the Course Diploma in Cyber Security shall be classified as above and merit list shall be notified as per Ordinance No.6.

20. Notwithstanding anything to the contrary in this Direction, no person shall be admitted to an examination under this Direction, if he/she has already passed the same examination or an equivalent examination of any Statutory University.

21. The examinees who have passed in all the subjects prescribed for Semester I and Semester II of the examination of the Diploma Course shall be eligible for award of Diploma in Cyber Security (One Year Two Semesters Course).

Sd/-
(Dr. Milind A. Barhate)
Vice-Chancellor
Sant Gadge Baba Amravati University

Date : 07 /08/2024

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Sant Gadge Baba Amravati University AmravatiDiploma in Cyber Security (1 Year) NSQF Level 5

Sr. No.	type	SubjectCode	Subject	Teaching Scheme (Hrs./Week)			Credit	Examination and Evaluation Scheme						
				Th.	Pr.	Total		Exam Duration (Hrs.)	Max. Marks			Total Marks	Min. Passing Marks	
									External Marks		Internal Marks		Th.	Pr.
									TH	PR				
SEMESTER 1														
1	Core Skill	1DCS1	Cyber Security Techniques	4		4	4	3	80	-	20	100	40	-
2	Core Skill	1DCS2	Introduction to Ethical Hacking	4		4	4	3	80	-	20	100	40	-
3	Core Skill	1DCS3	Computer Network and Security	4		4	4	3	80	-	20	100	40	-
4	Core Skill	1DCS4	Fundamentals of Cyber Laws	3		3	3	3	80	-	20	100	40	-
5	SEC/lab	1DCS5	Cyber Security Techniques - LAB		2	2	1	-	-	25	25	50	-	20
6	SEC/lab	1DCS6	Network programming - LAB		2	2	1	-	-	25	25	50	-	20
7	SEC/lab	1DCS7	Penetration testing with Linux		2	2	1	-	-	25	25	50	-	20
8	GE	1DCS8	Intellectual property rights in cyber space	3	2	5	4	2	60	20	20	100	40	-
9	GE	1DCS9	Communication Skills I	3	2	5	4	2	60	20	20	100	40	-
10	GE	1DCS10	Information Ethics	3	2	5	4	2	60	20	20	100	40	-
			TOTAL			**36**	**30**					**850**		
SEMESTER 2														
1	Core Skill	2DCS1	Cryptography	4		4	4	3	80	-	20	100	40	-
2	Core Skill	2DCS2	Digital Forensic and Security	4		4	4	3	80	-	20	100	40	-
3	Core Skill	2DCS3	Web Security	3		3	3	3	80	-	20	100	40	-

4	DSE	2DCSE1 2DCSE2	E1: Cloud Computing fundamentalsand Security E2 : Application and NetworkSecurity	3		3	3	3	8 0	-	20	100	40	-
5	SEC	2DCS4	LAB based on 2DCS/1/2/3		2	2	1	-	-	25	25	50	-	20
6	SEC	2DCS5	Project/Internship	1	2	3	2	-	-	25	25	50	-	20
7	SEC	2DCS6	LAB based on 2DCSE1/E2		2	2	1	-	-	25	25	50	-	20
8	GE	2DCS7	E-Commerce Legal Issues	3	2	5	4	2	60	20	20	100	40	-
9	GE	2DCS8	Cyber Attacks and Counter Measures	3	2	5	4	2	60	20	20	100	40	-
10	GE	2DCS9	Communication Skills II	3	2	5	4	2	60	20	20	100	40	-
			TOTAL			**36**	**30**					**850**		