

**Ordinance No. 12 of 2017**

**EXAMINATIONS LEADING TO THE DIPLOMA IN HARDWARE AND NETWORKING TECHNOLOGY(ONE YEAR DIPLOMA COURSE) IN THE FACULTY OF SCIENCE (WITH CREDIT-GRADE SYSTEM) ORDINANCE, 2017.**

WHEREAS, it is expedient to provide on ordinance in respect of examinations leading to the Diploma in hardware and networking Technology in the faculty of science (with credit Grade system) for the purposes hereinafter appearing, the management council is here by pleased to make the following ordinance :-

1. This ordinance be called ‘ Examinations leading to the **Diploma in Hardware and Networking Technology** (One year Diploma course), in the faculty of science (with credit grade with system) ordinance 2017.
2. This ordinance shall come in to force with effect from the Academic Session 2016-17.
3. The duration of the course shall be of one Academic year. At the end of Academic year there shall be university examination.
4. The examination shall be held at such places and on such dates as may be appointed by the university.
5. Subject to their compliance with the provisions of this ordinance and of other ordinances in force from time to time, the candidate who has prosecuted a regular course of study for not less than one academic year shall be eligible for admission to the examination.
6. Post Graduate Diploma in Computer Science and Application shall be One year course with bi-annual examination pattern. Additional. supplementary examination shall be conducted parallel to the other semester end examination.
7. **Eligibility:-** A candidate who has passed B.Sc. with Mathematics or Computer as one subject or Bachelor of Computer application(B.C.A.) or B.Sc.(I,T,) shall be enrolled for this course.
8. There will be 5 theory papers and two practical papers and one project.
9. The fees for the examination, tuition laboratory and other fees shall be prescribed by the university from time to time.
10. a) The scope of the subjects shall be as prescribed in the syllabus.  
b) The medium of instruction and examination shall be English.

11. The number of papers and the maximum marks assigned to each paper and minimum marks/grade an examinee must obtain, in order to pass examination shall be as prescribed in Appendix – A, appended with this ordinance the scheme of teaching and examination is provided under the said appendix.

## 12. Scheme and Passing Criteria

- 1) Min. Passing marks shall be 40% separately in Theory Internal Assessment and Practical and project. Student must pass separately in practical and project by scoring min. marks in Internal and External.
- 2) Each theory paper is consisting of 80 marks and min. passing marks in Theory paper shall be 32.
- 3) Min. passing marks in Practical examination shall be 20 (10+10) out of 50 (25+25) Marks.
- 4) Each theory paper shall have 20 marks for Internal Assessment and min. passing marks shall be 07.
- 5) Internal Assessment marks comprise of at least 4 activities of the following:-
  1. Home Assignment ,
  2. Class Test Examination Performance,
  3. Seminar,
  4. Case Studies,
  5. Group Discussion,
  6. Field Work,
  7. Study Tour,
  8. Paper Presentation,
  9. Book Review,
  10. Involvement in Departmental and College Activities

## 13. Practical Examination Scheme :-

**i) Time:** Minimum 2 Hours 30 Min. for conducting the practical examination subject to number of computers and printers at the center if ratio of student and number of computer are same.

- a. If there are less number of computer (50%) than total number of enrolled students for practical examination, then additional 2 hours.
- b. If there are less number of computer (25%) than total number of enrolled students for practical examination, then additional 4 hours.

**ii) Practical Examination Evaluation Scheme:-**

1) One question to Write and Execute for Taking Printout of Program	40 Marks
2) One question to Write Program or from Practical Index	20 Marks
3) Record	20 Marks
4) Viva	<u>20 Marks</u>

**Total 100 Marks**

14. Minimum marks for passing shall be 35% of the total marks allotted to theory/internal assessment/practical. A candidate has to pass individually in theory /internal assessment/practical.
15. The course shall be based on credit grade system ( Annual pattern) is a therefore, it will be regulated by guideline provided in **Appendix-B** which is a part of this ordinance.
16. As soon as possible after the examination, Board of examinations will publish a list of successful examinee at the Diploma in Hardware and networking Technology final examination. The result of all examiners shall be classified on the basis of adopted model of Credit-grade system provided under (**Appendix-B**) appended with this ordinance.
17. The examinees who have secured pass grade in all subjects prescribed for the examination shall be eligible for the award of the Diploma in Hardware and networking Technology final. The classification of division of examinees for the award of Diploma in Hardware and Networking Technology in the Faculty of Science shall be on the basis of Credit Grade system demonstrated under **Appendix B**,
18. No person shall be admitted to the Diploma in Hardware and networking Technology final examination, if he has already passed the corresponding or an equivalent examination of other statutory university.
19. Successful examinee at the Diploma in Hardware and networking Technology final examination shall, on payment of the prescribed fee, receive a diploma in the prescribed form, signed by the Vice-Chancellor.

**(Statement of object and reasons)**

The vice chancellor of the university on 14/11/2013 had issued Direction No 110 of 2013 in respect of Examination leading to the Diploma in Hardware and networking Technology with credit Grade systems in the faculty of science under provision of sub section (8) of section 14 of the Maharashtra Universities Act,1994 to regulate the matter for the time being.

The said Direction is required to be converted into an ordinance, hence this Draft ordinance is prepared for consideration of the Academic council and the Management council of the University.

**Appendix-A**  
**(See para-11)**

**Scheme for Teaching and examination for the Diploma in Hardware and networking Technology (One year diploma course) in the faculty of science.**

Sr. No	Paper Code	Papers/Practicals	C R E D I T	Teaching Scheme per week (hrs.)			Examination Scheme			
				Th	Pr	Total	Max. Marks		Total Marks	Minimum Passing
							External Marks (T) / (E)	Internal Marks (I)		
1	1DHNT 1	Business Communication Skill	3	4	-	4	80	20	100	28 (T) 07 (I)
2	1DHNT 2	Information and Communication Technology	3	4	-	4	80	20	100	28 (T) 07 (I)
3	1DHNT 3	Computer Networking	3	4	-	4	80	20	100	28 (T) 07 (I)
4	1DHNT 4	Basic Electronics	3	4	-	4	80	20	100	28 (T) 07 (I)
5	1DHNT 5	PC – Maintenance	3	4	-	4	80	20	100	28 (T) 07 (I)
6	1DHNT 6	Practical-I based on Theory Paper 2,3	3	-	6	6	50	50	100	35
7	1DHNT 7	Practical-II based on Theory Paper-4 and 5	3	-	6	6	50	50	100	35
<b>Total</b>			<b>21</b>	<b>20</b>	<b>12</b>	<b>32</b>	<b>500</b>	<b>200</b>	<b>700</b>	<b>245</b>

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

## Appendix-B

(See paras 15,16&17)

### GUIDELINE FOR CREDIT-GRADE SYSTEM FOR U.G. (D.H.N.T) DIPLOMA IN HARDWARE AND NETWORKING TECHNOLOGY (ONE YEAR DIPLOMA COURSE) IN THE FACULTY OF SCIENCE

#### Course credit:

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

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

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

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

#### Grade:

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

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

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

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

#### **Performance Grading Scale**

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

#### **Grade Proposed Norms**

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

F: Fail

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

In the Credit and Grade Point System, the assessment of individual Courses in the concerned examinations will be on the basis of marks only, but the marks shall later be converted into Grades by some mechanism wherein the overall performance of the Learners can be reflected after considering the Credit Points for any given course. However, the overall evaluation shall be designated in terms of Grade. There are some abbreviations used here that need understanding of each and every parameter involved in grade computation and the evaluation mechanism. The abbreviations and formulae used are as follows:-

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

G: Grade  
GP: Grade Points  
C: Credits  
CP: Credit Points  
CG: Credits X Grades (Product of credits & Grades)  
 $\sum CG$ : Sum of Product of Credits & Grades points  
 $\sum C$ : Sum of Credits points  
$$SGPA = \frac{\sum CG}{\sum C}$$

#### Semester Grade point average (SGPA)

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

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

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

#### Cumulative Grade Point Average (CGPA)

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

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

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

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

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

**Illustration of Calculation:-**

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

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

Courses in the semester	Marks % obtained	Grade	Grade points (G)	Credits (C) per Course	$\sum CG = (C \times G)$	SGPA = $\frac{\sum CG}{\sum C}$
Course- I	55	B	4	4	16	82/20= 4.1
Course-II	60	B	4	4	16	
Course-III	70	A	5	4	20	
Course-IV	80	O	6	3	18	
Course-V	40	D	2	3	06	
Course-VI	45	C	3	2	06	
Passes Credit earned = 20				$\sum C = 20$	$\sum CG = 82$	Grade = B

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

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

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

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