

**PGDCA-01/MSCCS-01/
PGDCA-101/MSCCS-101/
MSCCSC-101/MCA-101**

June – Examination 2022

**PGDCA/MSCCS (Pre.)/MCA
(I Year) Examination**

Computer Fundamental and System Software

**Paper : PGDCA-01/MSCCS-01/PGDCA-101/
MSCCS-101/MSCCSC-101/MCA-101**

Time : 1½ Hours]

[Maximum Marks : 80

Note :- The question paper is divided into two Sections A and B. Write answers as per the given instructions.

Section–A

4×4=16

(Very Short Answer Type Questions)

Note :- Answer any *four* questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries 4 marks.

1. (i) List the major characteristics of computer.
- (ii) Simplify the Boolean equations :
$$A.B.C + A.B.C' + A.B'$$
- (iii) Give any *two* advantages of Disk Access Scheduling.
- (iv) Draw the truth table for the XNOR gate with a standard logic symbol.
- (v) What is Vi Editor ?
- (vi) How Wildcard characters are used in MS DOS commands ? Give examples.
- (vii) What is the use of the man command ? Give an example.
- (viii) Give the difference between Bit and Byte ?

Section-B **4×16=64**

(Short Answer Type Questions)

Note :- Answer any *four* questions. Answer should not exceed **200** words. Each question carries 16 marks.

2. Explain starvation and aging with respect to scheduling and its use with suitable examples.

3. What are the necessary conditions for deadlock ? Explain with suitable examples.
4. Consider the following page reference string 1, 2, 3, 4, 5, 2, 6, 7, 3, 2, 4, 1, 7, 1, 4, 3, 2, 3, 4, 7, 1. Compare the number of page faults with frame sizes 3, 4, and 5 with any replacement algorithm.
5. What is Linux ? Why is it popular ? Explain the login and logout process of Linux.
6. What do you mean by Gray Code ? Define the steps of conversion a Gray coded number to binary number. Also explain with suitable an example.
7. Explain Paging with translation look-aside buffer with neat diagram.
8. What is Printer ? Explain different types of printer.
9. What is RAID ? Explain its levels.