

7. Define volatile memory. Explain differences between primary memory and secondary memory. Describe the following in detail :

- (a) RAM
- (b) PROM
- (c) EPROM
- (d) EEPROM

8. Define programming language. Explain the differences between machine language, assembly language and high level language. Also, explain how compiler is different from interpreters.

9. What is Disk and File ? Explain disk space management in detail. Also, describe the disk allocation methods with suitable diagram. Explain UNIX file system in brief.

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

December – Examination 2021

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

**Computer Fundamental and System Software
Paper : PGDCA-01/PGDCA-101/MSCCS-01/
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) What are characteristics of Computer ?
- (ii) Write the function of Smart Card.
- (iii) Describe track, sector and cylinder.
- (iv) What is the OMR ?
- (v) Find the decimal equivalent of the 10110001.1011 binary numbers.
- (vi) What are various components of operating systems ?
- (vii) What is purpose of thread ?
- (viii) Define i-node.

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. What is Operating System ? Describe different components of windows operating system. Also, explain various features of Windows Operating System.

3. What are the internal and external commands in MS-DOS ? Explain the term 'Booting the System'. Also, describe the config.sys file in MS-DOS and the use of Autoexec.bat file.
4. What is Virtual Memory ? Explain paging and segmentation with suitable example and neat diagram. Also, describe difference between paging and segmentation.
5. What is Scheduler ? Explain types of scheduler. Also, describe scheduling algorithm criteria with FCFS (First Come First Serve) scheduling algorithm with suitable example.
6. What are logic gates ? Explain the following logic gates with truth table and suitable diagram :
 - (a) NOT
 - (b) AND
 - (c) OR
 - (d) NAND
 - (e) NOR
 - (f) Ex-OR
 - (g) Ex-NOR