

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

June - Examination 2018

**MSCCS / PGDCA /MCA I Year Examination****Computer Fundamental and System Software****Paper - PGDCA/MSCCS-01/MCA-101****Time : 3 Hours ]****[ Max. Marks :- 100**

**Note:** The question paper is divided into three sections A, B and C. Write answers as per given instructions.

**Section - A****10 × 2 = 20**

(Very Short Answer Questions)

**Note:** Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

- 1) (i) What is meant by OMR?
- (ii) Draw the standard logic symbol for Exclusive-OR (XOR) and Exclusive NOR (XNOR) Gates.
- (iii) List use of COPYCON command in MS-DOS.
- (iv) What is Booting?
- (v) What is Bit Map?
- (vi) What is external fragmentation?
- (vii) Which file is used by Linux distribution to store the encrypted user passwords.

- (viii) Differentiate between Absolute path name and Relative path name.
- (ix) What is Byte?
- (x) List the necessary conditions of Deadlock.

**Section - B****4 × 10 = 40**

(Short Answer Questions)

**Note:** Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 10 marks.

- 2) What is Touch Pad? How it works? Explain in detail.
- 3) What is the subtraction of Binary numbers 11001-1010 by 2's compliment method? Also write the steps.
- 4) Write short note on ASCII Code.
- 5) What do you mean by process Control Block (PCB)? Also explain the content of PCB.
- 6) Explain various types of files in LINUX in brief.
- 7) What is Virtual Memory? How virtual memory can be implemented using paging? Explain.
- 8) What is critical section? Why process entry to critical section is restricted?
- 9) Explain difference between Linker and Loader.

**Section - C****2 × 20 = 40**

(Long Answer Questions)

**Note:** Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.

- 10) Give the definition and characteristics of Computer System. Also explain the classification of Computer System.
- 11) Explain the term file system. Also, compare Windows and Linux file systems.
- 12) Why Memory Management is necessary in Operating System? Given memory partitions/holes of 100KB, 500KB, 200KB, 30KB and 600KB. Processes request for allocation of memory space of 212KB, 417KB, 112KB and 280KB in order. Show how the memory will be allocated to different process using first fit, best fit and worst fit algorithms?
- 13) Write short note on the following.
  - (i) RAID technology
  - (ii) Optical Disk storage

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