PGDCA/MSCCS-01/MCA-101

December - Examination 2017

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 $10 \times 2 = 20$

(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) Define computer.

(ii) What do you mean by interpreter?

(iii) Differentiate between Random and Sequential access.

(iv) What do you mean by RAID?

(v) What are unsigned and signed integers?

(vi) What is NAND Gate?

(vii) Write full form of ASCII.

(viii) What is kernel in operating system?

(ix) What is IPC?

(x) What is deadline?

Section - B $4 \times 10 = 40$

(Short Answer Questions)

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

2) Explain floating point representation of a number with suitable example.

3) Write a short note on paging.

4) What are different types of logic gates.

5) What is modem? Draw its diagram and explain its types.

6) What are different types of video standards?

7) Differentiate between preemptive and non-preemptive scheduling.

8) What is PCB? Explain in details.

9) Explain Inter Process Communication System.

Section - C $2 \times 20 = 40$

(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) Write five major activities of an operating system with regards to file management system and explain various components of O.S.

11) Write short notes on :– (Any two)
   (i) Paging
   (ii) Segmentation
   (iii) Disk Scheduling
   (iv) Fragmentation

12) Explain MS-DOS? Explain all internal and external commands of MS-DOS.

13) Convert following number systems :–
   (i) $(101101001)_2 = (?)_{10}$
   (ii) $(536)_8 = (?)_2$
   (iii) $(A32)_{16} = (?)_{10}$
   (iv) $(432.86)_{10} = (?)_2$
   (v) $(9BA)_{16} = (?)_2$
   (vi) $(773)_8 = (?)_{16}$
   (vii) $(55.92)_{16} = (?)_8$
   (viii) $(11001.111)_2 = (?)_8$
   (ix) $(514)_{10} = (?)_2$
   (x) $(1001)_{10} = (?)_8$