K19P 0918

Reg. No. : .....

Name : .....

II Semester M.C.A. Degree (Reg./Suppl./Imp.) Examination, July 2019
(2014 Admission Onwards)
MCA2C09 : COMPUTER ORGANIZATION

Time : 3 Hours Max. Marks : 80

SECTION – A

Answer **any ten** questions. **Each** question carries **three** marks.

1. Define the terms :
   a) Program
   b) Data.
2. How a binary floating-point number can be represented ?
3. Write a note on second generation of computer.
4. What are the uses of Exceptions in operating system ?
5. What is the difference between a subroutine and interrupt-service routine ?
6. What are the issues involved in handling multiple devices ?
7. What is branching ? Write any 2 branch instructions.
8. Distinguish between restoring and non-restoring division.
9. What are the possibilities of enhancing performance ?

P.T.O.

10. Write the formula of the average access time experienced by the processor in a system and define each terms used in the notation.

11. What are the pipelining issues ?

12. Distinguish between conditional branching and unconditional branching. **(10×3=30)**

SECTION – B

Answer **all** questions. **Each** question carries **ten** marks. **(10×5=50)**

13. a) Explain in detail the straight-line sequencing with suitable figure. **10**

OR

b) What are the two different styles of instruction set ? Explain each style with suitable program. **10**

14. a) What is program-controlled I/O ? Explain the concept of program-controlled I/O for two essential I/O devices for human-computer interaction with suitable figure. **10**

OR

b) What is PCI Bus ? Explain its features and device configuration in detail. **10**

15. a) i) Write and explain the RISC-style program that initializes and handles interrupts. **5**

ii) Explain the concept of carry-save addition of summands with suitable figure. **5**

OR

b) Explain the concept of implementing floating-point operations using suitable Block diagram. **10**

16. a) Describe the structure of organization of a 8 M × 32 memory using 512 K × 8 static Memory chip. Explain. **10**

OR

b) Explain the concept of semiconductor RAM S with suitable figure. **10**

17. a) What is multiprocessor ? Explain the shared-memory multiprocessor with suitable figure. **10**

OR

b) Explain the snoopy-cache technique with suitable situations. **10**
