



K17P 1141

Reg. No.: .....

Name : .....

**Second Semester M.C.A. Degree (Regular/Supplementary/Improvement)**  
**Examination, July 2017**  
**(2014 Admission Onwards)**  
**MCA2C09 : COMPUTER ORGANIZATION**

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

1. Compare the operations of 1's and 2's compliments.
2. Compare and contrast RISC and GISC.
3. What are the functions of interrupts ?
4. Mention the various interconnection standards for service process.
5. What are the functions of control signals.
6. List out the uses of microprogrammed control.
7. Mention the merits of Booth's algorithm.
8. What are the significant features of cache memory ?
9. Mention the merits of virtual memory.
10. List out various secondary storage devices.
11. What are the uses of hardware multithreading ?
12. Mention the design issues of pipelining.

(10×3=30)

P.T.O.



## SECTION – B

Answer **all** questions. **Each** question carries **ten** marks.

13. a) Explain both positive and negative number representation and their arithmetic operations briefly with suitable examples. 10
- OR
- b) List out various addressing modes. Explain the significant features of each one briefly. 10
14. a) Describe the daisy chain priority arrangement for handling interrupts. Explain briefly. 10
- OR
- b) With neat diagram explain the operations of a micro-programmed control unit. 10
15. a) What are the merits and demerits of micro-programmed control architecture over hard wired control architecture? Explain briefly. 10
- OR
- b) Derive an algorithm for multiply any two signed numbers using Booth's approach. Explain briefly. 10
16. a) What are the main requirements of memory management? Explain the significant features of each one. 10
- OR
- b) Explain direct and Associate Memory mapping briefly. 10
17. a) Explain the properties, merits and limitations of parallel processing system. 10
- OR
- b) i) Explain Flynn's classification of parallel processing. 5
- ii) Discuss the merits of pipelining process over parallel process. 5
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