K15P 0536

Reg. No.: .....

Name : .....

Third Semester M.C.A. Degree (Reg./Supple./Improve.) Examination, January 2016
(2014 Admn.)
MCA 3C17 : ADVANCED MICROPROCESSORS AND MICROCONTROLLORS

Time : 3 Hours Max. Marks : 80

SECTION – A

Answer **any ten** questions, **each** question carries three marks.

1. What are the function and interrupts ?
2. Distinguish between instructions and assembly directives.
3. What are the significant features of segments in 8086 ?
4. How advanced features of 386 is different from 286 microprocessor ?
5. What are the applications of 8086 microprocessor ?
6. Mention the various classes of pentium processor and their usage.
7. What are the key role functions of peripheral 8251 and 8255 ?
8. What are the services and functions of microcontrollers ?
9. Compare and contrast development and testing tools usage in software process.
10. How embedded system is different from main controller system ?
11. Compare and contrast single board computers and complete set of computers.
12. What are the services of 89C51 to PC ? **(10×3=30)**

P.T.O.

SECTION – B

Answer **all** questions, **each** question carries **ten** marks.

13. a) With suitable pictorial diagram discuss the architecture of 8086. **10**

OR

b) Mention the various interrupts of 8086, explain the services of each one briefly. **10**

14. a) Explain any six direct memory addressing modes of 8086. **10**

OR

b) Explain data formats and instructions supported by 8086. **10**

15. a) Discuss the applications and architecture of various pentium processor. **10**

OR

b) Explain the significant features of 8086 interfacing with 8253 and 8257 peripherally. **10**

16. a) List out various micro controllers. Explain the design issues and applications of any two micro controller. **10**

OR

b) Explain the classification embedded operating system with suitable examples. **10**

17. a) List out important hardware platform, explain importance of any two of them briefly with their applications. **10**

OR

b) Explain the architecture, services and programming concepts of PIC microcontroller. **10**