

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