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FIFTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE EXAMINATION, NOVEMBER 2014

EC/PTEC 09 505—MICROPROCESSORS AND MICROCONTROLLERS

Time : Three Hours　　　　　　　　　　　　　　　　　　Maximum : 70 Marks

Part A

Answer all questions.
Each question carries 2 marks.

1. What is the function of TEST signal ?

2. What are the functions of a coprocessor ?

3. What is the purpose of ISR and IMR in 8279 ?

4. What is SFR ?

5. What is N-key roll over ?

(5 × 2 = 10 marks)

Part B

Answer any four questions.
Each question carries 5 marks.

6. Explain about the segment registors.

7. Explain about clock generating circuit of 8086.

8. With an example, explain about absolute decoding and partial decoding methods.

9. Explain about SMOD and SCON registers.

10. Explain the cycle stealing mode of operation of DMA.

11. Compare ARM and 8051.

(4 × 5 = 20 marks)

Part C

Answer all questions.
Each question carries 10 marks.

12. Describe the software architecture of 8088.

Or

13. Write a Assembly language program to arrange N numbers in ascending order.

Turn over

14. Describe the multiprocessor configuration of 8086.

Or

15. Design a system to interface 4K × 8 ROM and 8K × 8S RAM using 2K × 8 memory devices.

16. Describe the operation of 8251.

Or

17. Discuss in detail the working of 8279.

18. Describe the operation of 8051 with a suitable diagram.

Or

19. Write briefly about development ARM processor and its architecture.

(4 × 10 = 40 marks)