BTS-V(S)-11.21-0890 Reg. No. | | | | | | | | |

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B.Tech. Degree V Semester Supplementary Examination November 2021

CS 15-1505 ADVANCED MICROPROCESSORS AND MICROCONTROLLERS

(*2015 Scheme*)

Time: 3 Hours Maximum Marks: 60

PART A

(Answer *ALL* questions)

(10 × 2 = 20)

I. (a) List all general-purpose registers of 80386 and state their function.
(b) Name the five types of descriptor registers.
(c) Draw the flag register of 80386.
(d) Name the features of multicore processors.
(e) Write notes on technological features in IA processors.
(f) Mention the features of core i3, i5 and i7.
(g) List the differences between microprocessors and microcontrollers.
(h) State how Data transfer instructions are used in 8051 microcontrollers.
(i) Mention the advantages and disadvantages of PIC microcontrollers.
(j) Write short notes on registers of PIC 18F240.

PART B

(4 × 10 = 40)

II. (a) Explain the features of Pentium II, Pentium III and Pentium IV processors. (7)
(b) Write notes on Floating point unit of 80386. (3)

OR

III. (a) Describe the two-level table mechanism in paging unit. (6)
(b) Define the importance of MMX. (4)

IV. (a) Write notes on Intel Skylake, Bonnell and Silvermont microarchitecture. (8)
(b) How TDP relevant for mobile devices? (2)

OR

V. Describe about the generations of core processor family. (10)

VI. Draw and Explain the architecture of 8051 microcontrollers. (10)

OR

VII. (a) Explain the interfacing of Stepper motor. (5)
(b) WAP to Store 01 H, 02 H, 03 H and 04 H in register R 0, R 1, R 2 and R 3 respectively and exchange data stored in registers R0 with R1 and data in register R 2 with R 3. (5)

VIII. Draw and Explain the architecture of PIC 16f84A. (10)

OR

IX. State how the interrupts and registers of PIC 18F2420 are arranged. (10)

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