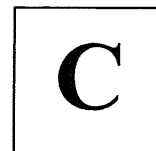


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***B.Tech. Degree V Semester Supplementary Examination
November 2021***

**CS 15-1505 ADVANCED MICROPROCESSORS AND MICROCONTROLLERS
(2015 Scheme)**

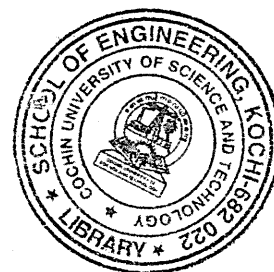
Time: 3 Hours

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)
