C

B.Tech. Degree V Semester Supplementary Examination April 2018

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

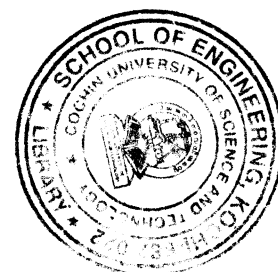Time: 3 Hours   Maximum Marks: 60

PART A
(Answer *ALL* questions)

(10 × 2 = 20)

I.   (a)   Explain the paging mechanism of 80386.

(b)   What are the merits of RISC processor over CISC processor?

(c)   Explain Floating point unit in pentium.

(d)   Give the details of Nahelam microarchitecture.

(e)   Write notes on Intel skylake microarchitecture.

(f)   What are the different types of interrupts in 8051 microcontroller?

(g)   Compare a microcontroller with a microprocessor.

(h)   Explain addressing modes of 8051 microcontroller.

(i)   What is a PIC microcontroller?

(j)   Explain the power-up set mechanism in PIC16F84A.

PART B

(4 × 10 = 40)

II.   Draw and explain Intel 80386 microprocessor architecture.   (10)

OR

III.   List the features of pentium-II, pentium-III and pentium-IV.   (10)

IV.   (a)   Define nanometer technology.   (3)

(b)   Explain the architecture of Intel Atom Soc.   (7)

OR

V.   Compare and contrast core i3, i5 and i7 processors.   (10)

VI.   With a neat diagram explain the architecture of 8051 microcontroller.   (10)

OR

VII.   Explain how 8051 can be interfaced to: (10)

(i)   ADC.

(ii)   Hexkeyboard.

VIII.   Draw and explain the architecture of PIC 16F84A microcontroller.   (10)

OR

IX.   (a)   Explain PIC 18F2420 program memory organization.   (5)

(b)   Explain the registers of PIC 18F2420.   (5)

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