

(b) Evaluate $(+80) + (+90)$ and $(-80) + (-90)$ with binary numbers in signed-2's complement representation. Use eight bits to accommodate each number together with its sign. 3+3=6

3. (a) What is an interrupt cycle ? Draw a flowchart depicting the interrupt cycle. 5

(b) What is addressing mode ? An instruction is stored at location 500 with its address field at location 501. The address field has the value 600. The content of a processor register R1 is 300. Evaluate the effective address (EA) if the addressing mode of the instruction is : 5

(i) Direct

(ii) Relative

(iii) Immediate.

13/12/18 (M)

This question paper contains 4+2 printed pages]

Roll No.

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S. No. of Question Paper : 47

Unique Paper Code : 32341102

I

Name of the Paper : Computer System Architecture

Name of the Course : B.Sc. (H) Computer Science

Semester : I

Duration : 3 Hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Question No. 1 is compulsory.

Attempt any 4 questions out of Question Nos. 2 to 7.

Parts of a question must be answered together.

1. (a) Convert the following numbers with the indicated bases to decimal : 2

(i) $(121121)_3$

(ii) $(4310)_5$

(b) Given the Boolean expression $F = x'y + xyz'$, show that $F.F' = 0$. 2

P.T.O.