IT / IV / CBGS / COA / Comp. Organization Architecture

15-12-16

QP Code :549803

MAX MARKS:80 TIME:03 HRS

N.B. 1. Question No 1 is compulsory.

2. Solve any **three** questions out of remaining five questions.

3. Assume suitable data if necessary.

Q. 1. Solve any **four** out of five. (4*5=20)

a. What are the major requirements of I/O module?

b. Draw the flowchart of non-restoring division algorithm and explain the same.

c. With the help of diagram, explain Von-Neumann architecture.

d. Compare SRAM & DRAM.

e. Note on pipeline hazards.

Q. 2. a) Explain Flynn's classification in detail. (10)

b) Discuss the various characteristics of Memory. (10)

Q. 3. a) Multiply (-4) and (2) using Booth's algorithm. (10)

b) Explain Instruction cycle with Interrupt execution with example. (10)

Q. 4. a) Express $(4.50)_{10}$ in IEEE 754 single & double precision standard of floating point number representation. (10)

b) Explain design of control unit wrt softwired and hardwired approach. (10)

Q. 5. a) Divide 13 by 3 using restoring division algorithm. (10)

b) Explain different addressing modes with example. (10)

Q. 6. Write a note on any **two.** (2*10=20)

a. Comparison of RISC & CISC

b. Programmed I/O

c. Mapping techniques of Cache memory