(3 Hours) [Total Marks: 80

N.B.: (1) Question No. **1** is **compulsory**.
(2) Solve any **three** questions out of remaining **five**.
(3) Figures to **right** indicate **full** marks.
(4) Assume suitable **data** where **necessary**.

1. Solve any four out of five sub questions. [04 x 05=20]

   a) Explain Von-Neumann Architecture.

   b) Draw and explain 6 stage instruction pipeline.

   c) What are the various functions performed by I/O module?

   d) Differentiate between RICS & CISC.

   e) Represent $(15.125)_{10}$ in IEEE 754 single precision floating point standard.

Q. 2. a) Multiply (- 5) and (2) using Booth's Algorithm. 10

   b) Discuss various pipeline hazards with example. 10

Q. 3. a) Explain the register organization of a CPU. 10

   b) Consider the string 8, 3, 9, 4, 9, 8, 5, 8, 3, 9, 6, 7, 5, 4, 3, 9, 4, 9, 3 10

   Find the page faults for 3 frames using FIFO, Optimal, & LRU page replacement policies.

Q. 4. a) Divide 18 by 5 using restoring division algorithms. 10

   b) Explain Flynn's classification in detail. 10

Q. 5. a) Discuss the various characteristics of Memory. 10

   b) Explain design of control unit w.r.t. micro-programmed and hardwired approach. 10

Q. 6. a) Explain different addressing modes with example. 10

   b) What is the need of DMA? Explain its various techniques of data transfer. 10

[Time: 3 Hours]   [Marks:80]

Please check whether you have got the right question paper.

N.B: 1. Question **1** is compulsory.
        2. Attempt any three out of remaining questions.
        3. Figure to right indicates full marks.

1. a) List and explain common cross browser compatibility issues.   (05)
    b) Differentiate between GET and POST.   (05)
    c) Explain different stages of an ASP.NET web page.   (05)
    d) How is type casting done in PHP?   (05)

2. a) Write HTML code to draw the following table: (10)

Table I : Cricket Analysis

Country	Matches			Net RR
	Played	Won	Lose	
INDIA	30	28	2	+0.394
PAKISTAN	30	03	27	-1.09
AUSTRALIA	36	10	16	+0.12
SRILANKA	25	5	20	-0.80

    b) What is JQUERY? Write a program to validate a form using JQUERY.   (10)

3. a) Explain servlet lifecycle in detail.   (10)
    b) Give details about JDBC connectivity through an example.   (10)

4. a) Explain any 5 string manipulation functions in PHP with examples.   (10)
    b) Discuss various web system architectures.   (10)

5. a) Explain cookies, its attributes and uses in detail.   (10)
    b) Write an ASP.NET program to insert a new record in Student database.   (10)

6. Write short notes on(any **four**):   (20)
    (i) Session tracking
    (ii) Commonly used ADO.NET objects
    (iii) Use of RSS web feeds
    (iv) Different CSS text properties
    (v) Different types of XSL elements

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