

**2014**

***Time : 3 Hours***

***Full Marks -75***

***Candidates are required to give their answers  
In their own words as far as practicable.***

***The questions are of equal value***

***Answer any five questions  
In which Q No.1 is compulsory***

**1. Choose the correct answer of the following :**

**a) \_\_\_\_\_ is a very small computer that can be held in the palm of the hand.**

- i) PDC**
- ii) PC**
- iii) Laptop**
- iv) Mini Computer**

**b) A group of 8 bits is called a \_\_\_\_\_**

- i) Bite**
- ii) Byte**
- iii) Octbits**
- iv) None of the above**

**d) The binary equivalent of  $(359)_{10}$  is \_\_\_\_\_**

- i) 101010100**
- ii) 110011000**
- iii) 101100111**
- iv) None of the above**

- e) A gate which is also known as inverter is \_\_\_\_\_
- i) AND
  - ii) OR
  - iii) NOT
  - iv) NAND
- f) The octal addition of  $(25)_8$  and  $(15)_8$  is \_\_\_\_\_
- i)  $(42)_8$
  - ii)  $(40)_8$
  - iii)  $(41)_8$
  - iv) None of these
- g) The set of wires, which carry information in a controlled manner is \_\_\_\_\_
- i) System bus
  - ii) Public bus
  - iii) Private bus
  - iv) None of the above
- h) The memory, which is utmost access able to the processor is \_\_\_\_\_
- i) RAM
  - ii) Cache Memory
  - iii) ROM
  - iv) None of the above
- i) Rotational delay is also known as \_\_\_\_\_
- i) Seek time
  - ii) Shift time

- iii) Latency
  - iv) Access time
- j) Which among the following is not a pointing device?
  - i) Trackball
  - ii) Lightpen
  - iii) Scanner
  - iv) Mouse.
- 2. Explain the various applications of computer.
- 3. Draw a block diagram to illustrate the basic organization of a computer system.
  - a)
  - b) Explain the functions of various units of a computer system.
- 4.
  - a) What do you mean by hard copy and soft copy?
  - b) Differentiate between impact and non- impact printers.
- 5. Explain the storage organization of a magnetic tape. What are its advantages and Disadvantages?
- 6. What are the different types of computers? Discuss the advantages of using Mini computer over micro computer.
- 7. Perform the binary arithmetic using 2's complement:
  - a)     10111001     +     10011001
  - b)     00001010     -     00110011
  - c)     1000011     -     00110101
- 8. What do you mean by language translator? Differentiate between compiles and Interpreter.
- 9. Differentiate between them :
  - a) Uniprocessor and multiprocessor
  - b) Computer and human brain
- 10. What is an instruction Act? Explain RISC and CISC architecture.