

- Note:** 1. All questions are compulsory.
 2. Figures to the right indicate marks.

Q.1 A. Multiple choice questions.

(6)

1. The technology used in third generation computer is _____.
 - a. Integrated circuits
 - b. Transistors
 - c. Vacuum tubes
 - d. Radios

2. In Analog Computers the data is processed in a _____ form.
 - a. Continuous
 - b. Discrete
 - c. Nano
 - d. Pico

3. Which of these operating systems does not provide a graphical user interface?
 - a. Windows XP
 - b. Linux
 - c. Android
 - d. Microsoft DOS

4. The diamond shape in the flowchart signifies _____.
 - a. Processing
 - b. Decision making
 - c. Input
 - d. Output

5. Break statement takes the control out of the _____.
 - a. Program
 - b. Loop
 - c. Brackets
 - d. C language

6. The format character used for representing a single character is _____.
 - a. % s
 - b. % c
 - c. % d
 - d. % f

B. Match the following:

(6)

- | A | B |
|--------------------------------|----------------------------|
| 1. Mega Hertz (MHz) | Speed in nano - second |
| 2. Micro computers | Millions cycles per second |
| 3. Third Generation | Carriage return |
| 4. Unformatted Input Functions | Inventory Control |
| 5. \r | Laptops |
| 6. Application Software | getchar() |

Q.2 Answer the following questions : (Any 2)

(12)

- A.** Explain in brief basic components of digital computer.
- B.** Give the difference between the following:
1. Analog & Digital computers
 2. Mainframe computers & Super computers
 3. Desktop computers & Notebook or Laptops.

C. I. Convert the following binary number to decimal.

1. $(111011)_2$
2. $(11.011)_2$
3. $(100.01)_2$

II. Convert the following binary numbers to Hexadecimal.

1. $(11011)_2$
2. $(11.010)_2$
3. $(1010.1010)_2$

Q.3 Answer the following questions : (Any 2)

(12)

- A. What is an operating System? Explain different functions of Operating System.
- B. Draw the flowchart & write the algorithm to input a number & check if it is even or odd.
- C. Explain different Characteristics of compiler & interpreter.

Q.4 Answer the following questions : (Any 2)

(12)

- A. What is string constant? Explain all types of constants with one example in details.
- B. Write a program to input the basic pay & Calculate & display basic pay, da, hra, total pay & tax where da as 60% of basic pay, hra as 25% of basic pay, total as basic pay + da +hra & tax as 10% of the total pay.
- C. Give the difference between the following in C language.
 1. gets () and puts ()
 2. scanf () & printf ()
 3. getch () & putch ()

Q.5 Answer the following questions : (Any 2)

(12)

- A. Explain if () statement & Nested if () statement in C.
- B. Write the program in C to input an number & check if it divisible by 3 and 7
- C. Write the program in C to display all even numbers from 1 to 100 & their sum.
