

- Q.30 Explain the difference between 1D & 2D arrays with example.

Q.31  $\text{Float } a[3][2] = \{1, 2, 3, 4, 5, 6, \};$   
Value of  $a[1][1] = \underline{\hspace{2cm}}$

Q.32 Explain the allocation of memory to the following array  
 $\text{Int } a[4][3];$

Q.33  $\text{char } a[5] = \{'a', 'b', 'c', 'd', 'e'\};$   
The base address = 1000  
Find out the address and value of  $a[2]$  &  $a[3]$

Q.34 Explain the syntax and semantics of multi-dimensional arrays.

Q.35 Write a program in C to print month of the year using switch case statement.

## **SECTION-D**

**Note: Long answer questions. Attempt any two questions out of three Questions. (2x10=20)**

- Q.36 Explain call by value & call by reference methods of parameter passing in C.

Q.37 Write a program in C to concatenate two strings in C.

Q.38 Elaborate Software applications in Electronics Engineering.

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**3rd Sem.**  
**Branch : Mechatronics**  
**Sub.: Computer Programming & Applications**

**Time : 3 Hrs.**

M.M. : 100

## **SECTION-A**

**Note: Multiple type Questions. All Questions are compulsory. (10x1=10)**

- Q.1 How many reserved words are there in C

  - a) 8
  - b) 16
  - c) 32
  - d) 64

Q.2 Scanf() and printf() are defined in which header file?

  - a) conio.h
  - b) Stdlib.h
  - c) stdio.h
  - d) None of these

Q.3 Data type char has size of

  - a) 1 bytes
  - b) 2 bytes
  - c) 4 bytes
  - d) 8 bytes

Q.4 Which loop is an exit-controlled loop

  - a) for
  - b) while
  - c) switch case
  - d) do-while

Q.5 The escape sequence \0 stands for

  - a) beginning
  - b) backspace
  - c) null
  - d) None of these

- Q.6 The only function required in each C program is

  - a) clrsc ()
  - b) strlen()
  - c) main()
  - d) exit()

Q.7 Line terminator in C is

  - a) :
  - b) '
  - c) ;
  - d) None of these

Q.8 Function pow (x,y) is defined which header file?

  - a) conio.h
  - b) math.h
  - c) stdlib.h
  - d) none of these

Q.9 Which of the following is a reserved word in C

  - a) copy
  - b) paste
  - c) register
  - d) None of these

Q.10 The escape sequence /a stands for

  - a) return
  - b) bell
  - c) backspace
  - d) None of these

## **SECTION-B**

**Note: Objective type questions. All questions are compulsory. (10x1=10)**

- Q.11 Bitwise OR is represented by \_\_\_\_\_ symbol.

Q.12 A structure is a collection of \_\_\_\_\_ elements.

Q.13 A loop that is executed at least once, even if the condition is false is \_\_\_\_\_.

- Q.14 What Bitwise EX-OR is represented by \_\_\_\_\_ symbol.

Q.15 What is the difference between getch and getche?

Q.16 What is the output of following C code  $1==0?1:0;$

Q.17 What is subscript in C?

Q.18 An array is a collection of \_\_\_\_\_ elements.

Q.19  $10101101 \wedge 01001100 = \text{_____}.$

Q.20 The only function required in all C programs is \_\_\_\_\_.

### **SECTION-C**

**Note:** Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 What are communicators in C?
  - Q.22 What is an index in an array?
  - Q.23 Elaborate relational operators in C.
  - Q.24 Explain the difference between while and do while loops in C.
  - Q.25 Clearly explain the difference between break statement and exit () function with examples.
  - Q.26 Write a program in C to find the value of  $(x)^y$ .
  - Q.27 Explain the data-types in C.
  - Q.28 Name all reserved words in C.
  - Q.29 Draw the truth-table of  $\wedge$  gate in C.