

- Q.30 Explain the difference between 1D & 2D arrays with example.
- Q.31 Float a[3][2] = {1, 2, 3, 4, 5, 6,};  
Value of a[1][1] = \_\_\_\_\_
- Q.32 Explain the allocation of memory to the following array  
Int a[4][3];
- Q.33 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

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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  $10101101 \wedge 01001100 =$  \_\_\_\_\_.

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 ^ gate in C.