SUBJECT: COMPUTER SCIENCE (41)   **Max. Marks :70**

Total No. of Questions: 47   **Time: 03:15 Hours.**

PART – A

Answer all the questions, each question carries One mark.   **15 x 1 = 15**

I. Select the correct answer from the choices given.

1. The unit which controls and co-ordinates all the input and output divices of a system?
   (a) ALU   (b) MU   (c) CU   (d) VDU

2. The smallest dot that can be displayed is called as
   (a) Pixel   (b) Aspect ratio   (c) Picture   (d) Resolution

3. 1GB is equivalent to
   (a) 1000MB   (b) 1024MB   (c) 1000KB   (d) 1024KB

4. Which of the following is a non-weighted code?
   (a) BCD code   (b) EBCDIC code   (c) ASCII code   (d) Excess 3 BCD code

5. Identify the error in the following program segment
   void main()
   {
          int a=5, b=8;
          cout<<"a="<<a
   }
   (a) Statement missing   (b) Function should return a value

   (c) Terminated incorrectly   (d) Linker error

6. if(test condition)
        Statement-1;

      Statement-2;

   It is a

   (a) if – else selection   (b) simple if selection

   (c) nested if selection   (d) multiple selection

7. Who developed C++?
   (a) Dennis Ritchie   (b) Bjarne Stroustrup   (c) Ada lovelace   (d) Blaise Pascal

8. Give the header file that holds objects setw() and endl.
   (a) <iostream.h>   (b) <conio.h>   (c) <iomanip.h>   (d) <stdio.h>

9. Assertion (A) : dowhile is a post tested loop.
   Reason (R) : This loop repeats the execution of a set of statements till the condition is TRUE .

   (a) A is false and R is true   (b) A is true and R is correct explanation

   (c) A is true and R is not correct explanation   (d) A is true and R is false

10. Index of an array starts with
    (a) zero   (b) n-1   (c) two   (d) one

11. Which of the function calls itself,
    (a) calling function   (b) library function
    (c) main function   (d) recursive function
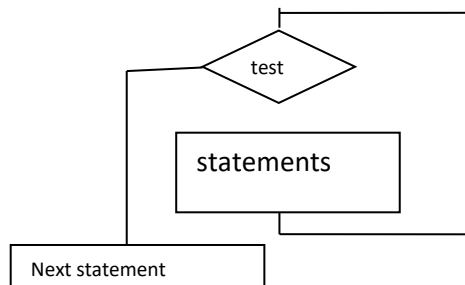
12. The variable declared inside the functions,
    (a) Local variable   (b) Global variable
    (c) Formal argument   (d) All of the above
13. Which of the following allows to type the letter only once and send to all the
    address on the list
    (a) thesaurus   (b) mail merge   (c) clip art   (d) word art
14. What is the extension of MS Excel file?
    (a) .doc or .docx   (b) .text   (c) .excel   (d) .xls or .xlsx
15. Which of the following is not a built in function in ESS
    (a) Sum()   (b) Nper()   (c) Date()   (d) Multiplication()

II. Fill in the blanks choosing the appropriate word/words from those given in the brackets.

(pretested, actual, int, >>, a++,++a)   **5 X 1 = 5**

16. _____ is an example for post increment operator.
17. _____ is stream extraction operator.
18. This is a ____|_____looping statement.

19. _____ is the data type of array subscript.
20. _____ argument can be constant, variable or expression.

PART-B

III. Answer any four questions. Each question carries two marks: 4 x 2 = 8

21. Mention any two characteristics of computers
22. What is a printer? Mention types of printers.
23. What is system software and application software?
24. Write any two characteristics of a good program.
25. Define data abstraction and data encapsulation.
26. Write a short note on integer datatype.
27. Give the difference between strcmp() and strcmpi().
28. Write the shortcut key for cut and copy operations in MS Word.

PART-C

IV. Answer any four questions. Each question carries three marks: 4 x 3 = 12

29. Expand the following terms.
    a. OMR   b. MICR   c. BCR
30. Give the radix of binary, octal and decimal system.
31. Compare CUI and GUI.
32. What is modular programming? Write any two advantages of modular programming.
33. Explain logical operators used in C++.

34. What is cascading I/O operation? Give examples for input and output operations.
35. Give the declaration syntax for different types of arrays.
36. What is a structure? Write an example for defining a structure.

PART-D

VI. Answer any Four questions, each question carries FIVE marks: $\qquad$ **4 x 5 = 20**

37. Explain second generation computers.
38. Write the different symbols and its purpose of a flowchart.
39. What is an identifier? Write the rules to naming an identifier.
40. Compare while and do while loop.
41. Write a program segment to input mXn rectangular matrix elements and print the same using two-dimensional array concept.
42. Write the applications of a spreadsheet.
43. Explain any five statistical functions used in ESS.
44. What is HTML? Write the general structure of HTML.

PART-E

V. Answer any TWO question carries FIVE marks: $\qquad$ **2 x 5 = 10**

45. Subtract $56_{(10)} - 36_{(10)}$ using 2's complement method.
46. Explain nested if selection statement with suitable example.
47. Explain "function with argument with return value" using suitable example.

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Question type	Number of questions	Marks
MCQ	15	15
FILL IN THE BLANKS (FIB) SA-1	05	05
SHORT ANSWERS SA-2	04 (08)	08 (16)
SHORT ANSWER SA-3	04 (08)	12 (24)
LONG ANSWERS	04 (08)	20 (40)
LONG ANSWER (2 HOTS + 1 LOTS)	02 (03)	10 (15)
Total	34 (47)	70 (115)

Chapter/ Content domain/ Unit/ Theme	No. of periods	Marks	Remember (31%)					Understand (42%)					Apply (16%)					HOTS (11%)				
			MCQ	SA-1	SA-2	SA-3	LA	MCQ	SA-1	SA-2	SA-3	LA	MCQ	SA-1	SA-2	SA-3	LA	MCQ	SA-1	SA-2	SA-3	LA
Overview of Computers	8	08	1		1							1										
Input Output and Memory units	8	07				1		1		1			1									
Data representation	9	09	1								1											1
Software Concepts	5	05			1							1										
Problem solving Methodology	15	12					1	1		1	1							1				
Object Oriented Concepts	2	02													1							
Introduction to C++	11	10	1			1	1		1													
Data types	2	2								1												
Input output Operators	5	05		1				1			1											
Control Statements	10	12									1						1	1	1			
Arrays	8	10		1				1								1	1					
Functions (Library functions)	2	02													1							
User defined Functions	8	08	1	1				1														1
Structures	2	03									1											
Word Processing	5	03			1			1														
Spreadsheets	14	12	1			1		1				1										
Web designing	6	05										1										
	=120	=115	5	3	3	2	3	7	1	3	5	4	1		2	1	2	2	1			2