



Standard - 11
COMPUTER SCIENCE

Time Allowed: 3.00 Hours

Maximum Marks: 70

PART - A**I. Answer all and Choose the best answer:****15×1=15**

- 1) When a system restarts which type of booting is used?
a) Warm booting b) Cold booting c) Touch boot d) Real boot
- 2) Which refers to the number of bits processed by a computer's CPU?
a) Byte b) Nibble c) Word length d) Bit
- 3) Which gate is called as the logical inverter?
a) AND b) OR c) NOT d) XNOR
- 4) What is the smallest size of data represented in a CD?
a) blocks b) sectors c) pits d) tracks
- 5) Operating system is a
a) Application software b) Hardware
c) System software d) Component
- 6) The shortcut key used to rename a file in windows
a) F2 b) F4 c) F5 d) F6
- 7) Which of the following activities is algorithmic in nature?
a) Multiply two numbers b) Draw a kolam
c) Walk in the park d) Swaping of two numbers
- 8) If C is false just before the loop, the control flows through
1 S1
2 While C
3 S2
4 S3
a) S1 ; S3 b) S1 ; S2 ; S3
c) S1 ; S2 ; S2 ; S3 d) S1 ; S2 ; S2 ; S2 ; S3
- 9) If $m \times a + n \times b$ is an invariant for the assignment $a, b := a+8, b+7$, the values of m and n are
a) $m = 8, n = 7$ b) $m = 7, n = 8$ c) $m = 7, n = 8$ d) $m = 8, n = -7$
- 10) Who coined C++?
a) Rick Mascitti b) Rick Bjarne c) Bill Gates d) Dennis Ritchie
- 11) Assume $a=5, b=6$; what will be result of $a\&b$?
a) 4 b) 5 c) 1 d) 0
- 12) Which of the following is not a data type modifier?
a) signed b) int c) long d) short
- 13) This can be used as alternate to endl command:
a) \t b) \b c) \0 d) \n
- 14) How many times the following loop will execute? for (int i=0; i<10; i++)
a) 0 b) 10 c) 9 d) 11
- 15) Identify the odd one from the keywords of jump statement:
a) break b) switch c) goto d) continue

PART - B

II. Answer ANY SIX of the following and question no. 23 is compulsory:

6×2=12

- 16) Distinguish between data and information.
- 17) Convert $(46)_{10}$ into Binary number?
- 18) What are the parameters which influence the characteristics of a microprocessor?
- 19) List out any two uses of Operating system.
- 20) How will you Rename a file?
- 21) Define an algorithm.
- 22) Write the following real constants into the exponent form:
(i) 23.197 (ii) 7.214 (iii) 0.00005 (iv) 0.319
- 23) Write a for loop that displays the number from 21 to 30.

PART - C

III. Answer ANY SIX of the following and question no. 30 is compulsory:

6×3=18

- 24) Differentiate Optical and Laser mouse.
- 25) Reason out why the NAND and NOR are called universal gates?
- 26) Write down the classifications of microprocessors based on the instruction set.
- 27) List out the key features of Operating System.
- 28) Write a note on Recycle bin.
- 29) Draw a flowchart for -3 case analysis using alternative statements.
- 30) Evaluate the following C++ expressions where x, y, z are integers and m, n are floating point numbers. The value of x = 5, y = 4 and m = 2.5;
(i) $n = x + y/x$;
(ii) $z = m * x + y$;
(iii) $z * = x * m + x$;
- 31) Write a C++ program to print multiplication table of a given number.

PART - D

5×5=25

IV. Answer ALL:

- 32) a) Discuss the various generation of computers. (OR)
- b) Find 1's Complement and 2's Complement for the following Decimal number.
(a) -98 (b) (-135)
- 33) a) Explain the fundamental gates with expression and truth table. (OR)
- b) Explain the types of ROM. (OR)
- 34) a) Explain the characteristics of a microprocessor. (OR)
- b) Explain the process management algorithms in Operating System. (OR)
- 35) a) Explain the versions of windows Operating System. (OR)
- b) Write a program to find sum of the series.
 $S = 1 + x + x^2 + \dots + x^n$ (OR)
- 36) a) What are the types of Errors? (OR)
- b) What is an entry control loop? Explain any one of the entry controlled loop with suitable example.