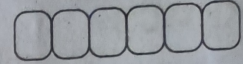


KK11CS

Kanyakumari District
Common Quarterly Examination - September 2024



Standard 11
COMPUTER SCIENCE

Time Allowed: 3.00 Hours

Maximum Marks: 70

Part - A

15×1=15

Choose the best answer:

- 1) Which generation of computer used IC's?
a) First b) Second c) Third d) Fourth
- 2) How many characters are handled in Binary coded Decimal system?
a) 64 b) 255 c) 256 d) 128
- 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) An example of single task operating system is
a) Linux b) Windows c) MS-DOS d) Unix
- 6) The shortcut key used to rename a file in windows
a) F2 b) F4 c) F5 d) F6
- 7) Stating the input property and the input-output relation a problem is known
a) Specification b) Statement c) Algorithm d) Definition
- 8) How many times the loop is iterated?

```

i := 0
while i # 5
i := i+1

```

a) 4 b) 5 c) 6 d) 0
- 9) The loop invariant need not be true
a) at the start of the loop b) at the start of each iteration
c) at the end of each iteration d) at the start of the algorithm
- 10) Which of the following operator is extraction operator in C++?
a) >> b) << c) < > d) ^ ^
- 11) This can be used as alternate to end l'command
a) \t b) \b c) \o d) \n
- 12) Which of the following is called entry control loop?
a) do...while b) while c) switch d) if.....else
- 13) Which of the following is the empty loop?
a) for (i=0 ; ; ++i) b) for (; ;)
c) for (i=0 ; i<=5 ; ++i) ; d) for (i=0 ; i<=5 ; i++)
- 14) $A \cdot 1 =$
a) 1 b) \bar{A} c) A d) 10
- 15) The shortcut key used to permanently delete the files and folder is
a) Ctrl+delete b) Shift+delete c) Alt+delete d) Delete

Part - B

Answer any six questions. Question no. 24 is compulsory:

6×2=12

- 16) Distinguish between data and information.
- 17) Write the 2's complement procedure.
- 18) What is Boolean Algebra?
- 19) What is HDMI?

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- 20) Differentiate save and save as option.
- 21) Why is function an abstraction?
- 22) What is the use of setw () format manipulator?
- 23) What is selection statements? Write its types.
- 24) Subtract: $1101011 - 111111$

Part - C**Answer any six questions. Question number 33 is compulsory:****6×3=18**

- 25) What are modifiers? What is the use of modifiers?
- 26) Differentiate invariant and loop invariant.
- 27) What is case analysis?
- 28) Write a note on Recycle bin.
- 29) Write a note on multitasking.
- 30) Classify the microprocessor based on the size of the data.
- 31) Write the significant features of monitor.
- 32) Write short note on ISCI.
- 33) Point out the errors in the following program.

```
Using namespaces std ;
int main ()
{
    cout<<"Enter a value";
    cin<<num1>>num2;
    num+num2 = sum;
    cout<<"\n The sum="<>sum;
}
```

$$\begin{array}{r}
 101010 \\
 1101011 - \\
 \hline
 111111 \\
 \hline
 01100
 \end{array}$$

Part - D**Answer all questions:****5×5=25**

- 34) Discuss the various generation of computers.

(OR)

Explain the fundamental gates with expression and truth table.

- 35) Explain the types of ROM. **(OR)**

Write the specification of an algorithm, hypotenuse whose inputs are the lengths of the two shorter sides of the right angled triangle and the output is the length of the third side.

- 36) Explain the concepts of a distributed OS along with its advantages.

(OR)

Power can also be defined recursively as
$$a^n = \begin{cases} 1 & \text{if } n = 0 \\ a \times a^{n-1} & \text{if } n \text{ is odd} \\ a^{n/2} \times a^{n/2} & \text{if } n \text{ is even} \end{cases}$$

construct a recursive algorithm using this definition. How many multiplications are needed to calculate a^{10} ?

- 37) Explain the different ways of finding a file or folder.

(OR)

a) Write the procedure to convert fractional decimal to binary.

b) Convert $(98.46)_{10}$ to Binary.

- 38) What are the types of Errors in C++?

(OR)

What is an entry control loop? Explain any one of the entry controlled loop with suitable example.
