

HIGHER SECONDARY FIRST YEAR 2019-2020

MODEL QUESTION PAPER

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- 1. Which gate circuit is an OR gate followed by an inverted?**
A) NOR B) XNOR C) AND D) OR
- 2. Which is used to connect a monitor or any display device like LCD projector to a computer?**
A) SCSI port B) VGA connector
C) USB port D) PS/2 port
- 3. Identify the in-built email software in Ubuntu:**
A) Internet Explorer B) Chrome
C) Thunderbird D) Firefox
- 4. Which is specified by the properties of the given input and the relation between the input and the desired output?**
A) Algorithm B) Definition
C) Specification D) Statement
- 5. If C1 is false and C2 is true, which compound statement will be executed?**

1. If C1

2. S1

3. else

4. If C2

5. S2

6. else

7. S3

A) S3 B) S1 & S2 C) S1 D) S2

6. A loop invariant need not be true:

A) at the end of each iteration

B) at the start of the algorithm

C) at the start of the loop

D) at the start of each iteration

7. Assume a =5, b =6; what will be the result of a & b ?

A) 1 B) 0 C) 4 D) 5

8. for(int i=1; i<=10;i++)

How many times will the loop be executed?

A) 9 B) 11 C) 0 D) 10

9. Which function is used to check whether a character is alphanumeric or not?

A) isalnum() B) islower()

C) isalpha() D) isdigit()

10. Which of the following is the scope resolution operator?

A) % B) :: C) > D) &

11. cin>>n[4]; to which element does the statement accept the value?

A) 4 B) 2 C) 5 D) 3

PART – II

Answer any six questions.

Question No. 24 is compulsory

6 X 2 = 12

16. Write short note on Impact printer.
17. What is a program counter?
18. What is a multi-user operating system?
19. Initially j is 20 and p is 4, then what will be the value of $p = p * ++j$;
20. What is Harvesting?
21. Write the syntax to declare two-dimensional array and write a suitable example.
22. What are the disadvantages of OOP?
23. What are called class members?
24. Write a while loop that displays numbers 5, 10, 15,50.

PART – III

Answer any six questions.

Question No. 33 is compulsory

6 X 3 = 18

25. Write the truth table and draw logic symbol of XOR gate.
26. Write short notes for the following:
 - (a) Network Indicator
 - (b) Session Indicator
27. What are the values of variables m and n after the assignment in line (1) and line (3)?
 - (1) $m, n := 4, 10$
 - (2) $-- m, n = ?, ?$
 - (3) $m, n := m + 5, n - 2$
 - (4) $-- m, n = ?, ?$
28. What is type conversion? Write short note on implicit type conversion.

29. Write the syntax and purpose of switch statement.
30. What is called nested structure? Give example.
31. Define Encapsulation.
32. What are the points to be noted while deriving a new class?
33. Read the following C++ snippet and answer the questions given below:

```
class student
{
    int m, n;
public:
    void add();
    float calc();
} x1, x2;
```

- (i) Identify the members of the class.
- (ii) What is size of the objects x1, x2 in memory?

PART – IV

Answer all the questions:

5 X 5 = 25

34. Explain the basic components of a computer with a neat diagram.

(OR)

Convert the following:

- (i) $(1920)_{10} = (\quad)_8$
- (ii) $(1920)_{10} = (\quad)_2$
- (iii) $(8BC)_{16} = (\quad)_2$
- (iv) $(6213)_8 = (\quad)_2$
- (v) $(255)_{10} = (\quad)_{16}$

35. Explain the concept of Distributed Operating System.

(OR)

Trace the step-by-step executed of the algorithm for factorial(3).

factorial(n)

--inputs : n is an integer, $n > 0$

--outputs : $f = n!$

f, i : 1, 1

while $i \leq n$

f, i : $= f \times i, i + 1$

36. Assume $a = 15, b = 20$; what will be the result of the following operations?

(a) $A \& b$ (b) $a | b$ (c) $a \wedge b$ (d) $a \gg 3$ (e) $(\sim b)$

(OR)

Explain call by value method using function in C++ with suitable example.

37. Explain briefly the basic concepts of OOP.

(OR)

Write the output for the following program

```
#include<iostream>
```

```
Using namespace std;
```

```
class nest
```

```
{
```

```
    int x1;
```

```
    int square_num()
```

```
{
```

```
    return x1 * x1;
```

```
}
```

```
public:
```

```
    void input_num()
```

```

{
    cout<<"\nEnter the number";
    cin>>x1;
}
int cube_num()
{
    return x1 * x1 * x1;
}
void disp_num()
{
    int sq = square_num();
    int cu = cube_num();
    cout<<"\n The square of "<<" is "<<sq;
    cout<<"\n The cube of"<<" is "<<cu;
}
};
int main()
{
    nest n1;
    n1.input_num();
    n1.disp_num();
    return 0;
}

```

38. What are the restrictions on operator overloading?

(OR)

Debug the following program to get the output

Output

Enter data

Name : Raman

Code : 1305

Experience : 25

Display data

Name : Raman

Code : 1305

Experience : 25 years

```
#include<iostream>
```

```
#incude<string>
```

```
Class Employee
```

```
{
```

```
    private
```

```
        char name[20];
```

```
        int code;
```

```
    public:
```

```
        void getdata();
```

```
        void display();
```

```
};
```

```
Class staff:public Employee
```

```
{
```

```
    int ex;
```

```
    public:
```

```
        void get();
```

```
        void display();
```

```
};
```

```
void Employee::display();
```

```
{
```

```
    cout<<"Name :"<<name;
```

```

        cout<<"Code :"<<code;
    }
void Employee::getdata()
{
    cout<<"Name :";
    gets(name);
    cout<<"Code :";
    cin>>code;
}
void staff::getdata()
{
    Employee::getdata();
    cout<<"Experience :";
    cin>>exp;
}
void staff::Display()
{
    Employee::display();
    cout<<"Experience :"<<ex<<" years"<<endl;
}
void main()
{
    staff s
    cout<<"Enter data"<<endl;
    S.getdata()
    cout<<"Display data"<<endl;
    s.display();
    return 0;
};

```

MODEL QUESTION PAPER - 1

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- 1. What was the component used in third generation computers?**
A) Vacuum tubes B) Transistors
C) Integrated Circuits D) Micro processors
- 2. Convert the decimal 948 to Hexadecimal**
A) 650 B) FACE C) 3B4 D) 15B3
- 3. Which is a combination of XOR gate followed by as inverter?**
A) NAND B) AND C) XNOR D) OR
- 4. Which of the following is a CISC processor?**
A) Intel P6 B) AMD K6
C) Intel 386 D) Pentium IV
- 5. Which operating system more than one tasks executed concurrently?**
A) Single user B) Multi user
C) Time sharing D) Multi processing
- 6. Which Window version is called "My computer"?**
A) Windows XP B) Windows 10
C) Windows 8 D) Windows 7
- 7. Which of the following operator is extraction operator of C++?**
A) >> B) << C) <> D) ^^

- 8. What will be the value stored in the variable S?**
N1=10;
N2=20;
S=N1++ + ++N2;
 A) 31 B) 32 C) 30 D) 29
- 9. The range of int is**
 A) -127 to 128 B) 0 to 255
 C) -128 to 127 D) -32768 to 32767
- 10. Which of the following is the exit control loop?**
 A) do-while B) for C) while D) if-else
- 11. Which function is used to check whether a character is alphanumeric or not.**
 A) isalpha() B) isdigit() C) isalnum() D) islower()
- 12. Array subscript is always starts with which number ?**
 A)-1 B) 0 C) 2 D) 3
- 13. Which is a user defined data type?**
 A) Object B) Paradigm C) Class D) Data hiding
- 14. The member function defined within the class behave like**
 A) inline functions B) Non inline function
 C) Outline function D) Data function
- 15. Inheritance is process of creating new class from**
 A) Base class B) abstract
 C) derived class D) Function

MODEL QUESTION PAPER – 1 - ANSWERS FOR OBJECTIVES

1. C	2. C	3. D	4. C	5. C	6. A	7. A	8. A
9. D	10. A	11. C	12. B	13. C	14. A	15. A	

PART – II

Answer any six questions.

Question No. 24 is compulsory

6 X 2 = 12

16. Write the functions of control unit.
17. Write a short on XNOR gate.
18. What is HDML?
19. What are the different Operating Systems used in computer?
20. What is System Software?
21. What are keywords? Can keywords be used as identifiers?
22. What is Compound statement?
23. What are importance of void data type.
24. What is the syntax to declare two – dimensional array.

PART – III

Answer any six questions.

Question No. 32 is compulsory

6 X 3 = 18

25. Write short note on impact printer.
26. Conversion of $(95)_{10}$ to Binary using the Sum of Powers of 2.
27. What is use of Cache memory?
28. List out the major differences between Windows and Ubuntu OS.
29. What are the advantages of using float data types?
30. What is the difference between `isupper()` and `toupper()` functions?
31. Write a note on Abstraction.
32. What is Copy constructor?
33. What is operator overloading? Give some example of operators which can be overloaded.

PART – IV

Answer all the questions:

5 X 5 = 25

34. Discuss the various generations of computers.

(OR)

Explain the fundamental gates with expression and truth table.

35. Explain the types of ROM.

(OR)

Explain the User Interface (UI).

36. Write about Binary operators used in C++.

(OR)

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

37. Explain Nested if in C++.

(OR)

Explain Call by value method with suitable example.

38. Explain scope of variable with example.

(OR)

Explain the different types of inheritance

MODEL QUESTION PAPER - 2

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- 1. Which refers to all the physical components associated with the computers?**
A) Software B) Hardware C) Data D) Memory
- 2. How many characters can be represented by ASCII code?**
A) 16 B) 256 C) 1024 D) 128
- 3. Which is a combination of XNOR gate followed by as inverter?**
A) NAND B) AND C) XOR D) OR
- 4. Which of the following is a multi-user Operating system?**
A) MSDOS B) UNIX C) DOS D) OS
- 5. The easiest way to start an application is to use its icon on the**
A) Tool bar B) Start menu C) Desktop D) Task bar
- 6. Which operator requires two operands**
A)Unary B) Binary C) Ternary D) Relational
- 7. How many fundamental data types in C++?**
A) 2 B) 3 C) 4 D) 5
- 8. The different statements in for loop which is separated by**
A) Comma B) Semicolons C) Colon D) Spaces

- 9. Which function is used to check whether a given character is a digit or not?**
 A) isalpha() B) isdigit() C) islower() D) isalnum()
- 10. In C++, array subscript value is enclosed within which symbol?**
 A) [] B) { } C) () D) < >
- 11. Structure definition is terminated by**
 A) : B) } C) ; D) ::
- 12. Which of the following is a user defined data type?**
 A) class B) float C) int D) object
- 13. The member function defined within the class behave like**
 A) inline functions B) Non inline function
 C) Outline function D) Data function
- 14. Which is the default access specifier?**
 A) private B) public
 C) protected D) static
- 15. When a derived class inherits only from one base class, it is known as**
 A) Multiple inheritance B) Hybrid inheritance
 C) Single inheritance D) Multilevel inheritance

MODEL QUESTION PAPER – 2 - ANSWERS FOR OBJECTIVES

1. B	2. B	3. C	4. B	5. C	6. B	7. B	8. A
9. B	10. A	11. C	12. A	13. A	14. A	15. C	

PART – II

Answer any six questions.

Question No. 24 is compulsory

6 X 2 = 12

16. What is QR Code?
17. What is Application Software?
18. What are the most popular Operating System?
19. What is String Literals?
20. What are the types of scopes in C++?
21. What is Traversal?
22. What is polymorphism?
23. What is Constructor?
24. What is function overloading?

PART – III

Answer any six questions.

Question No. 32 is compulsory

6 X 3 = 18

25. Write a short on NAND gate.
26. What is the use of MDR?
27. When the function of an Operating System includes?
28. What is Built-in functions?
29. List some of the features of modular programming
30. Write the General Form of a class definition.
31. What is the use of overloading a function?
32. What are the rules for function overloading?
33. What is Hybrid inheritance?

PART – IV

Answer all the questions:

5 X 5 = 25

34. Explain the various output devices.

(OR)

Explain advantages and disadvantages of open source operating systems.

35. Explain File Management.

(OR)

Explain the Renaming Files or Folders.

36. Explain the Punctuators used in C++.

(OR)

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

37. Explain if-else statement in C++.

(OR)

Explain Switch statement in C++.

38. Explain nested class with example.

(OR)

Find the output of the following.

```
#include<iostream>
using namespace std;
class base
{
public:
base()
{
cout<<"\nConstructor of base class...";
}
~base()
{
cout<<"\nDestructor of base class... ";
}
};
```

```
class derived:public base
{
public :
derived()
{
cout << "\nConstructor of derived ...";
}
~derived()
{
cout << "\nDestructor of derived ...";
}
};
class derived1 :public derived
{
public :
derived1()
{
cout << "\nConstructor of derived1 ...";
}
~derived1()
{
cout << "\nDestructor of derived1 ...";
}
};
int main()
{
derived1 x;
return 0;
}
```

MODEL QUESTION PAPER - 3

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- 1. Which concept is used in fifth generation computers?**
A) Computing B) Artificial Intelligence
C) Calculating D) Super computing
- 2. What is the decimal value of the Octal number 711_8 ?**
A) 711_{10} B) 458_{10} C) 457_{10} D) 719_{10}
- 3. Which of the following is a multi-user Operating system?**
A) MSDOS B) UNIX C) DOS D) OS
- 4. What is the capacity of 12cm diameter DVD with single sided and single layer?**
A) 4.7 GB B) 5.5 GB C) 7.8 GB D) 2.2 GB
- 5. Which Window version is called "This PC"?**
A) Windows XP B) Vista C) Windows 8 D) Windows 7
- 6. What will be the value stored in the variable B?**
A=5;
B=++A;
A) 6 B) 5 C) 11 D) 10
- 7. What is the bytes value of a int?**
A) 2 B) 1 C) 4 D) 8

8. In C++, the group of statements should enclosed within:

- A) { } B) [] C) () D) < >

9. Which function returns the value in the range of [-1, 1]?

- A)cos() B) rand() C) sqrt() D) pow()

10. Arrays in C++ belong to which of the following data type?

- A) Basic B) Derived C) User defined D) Primitive

11. Which operator cannot be overloaded?

- A) :: . sizeof ?; B) : sizeof + *
C) + - * ?; D) + . ? sizeof

12. The function used to concatenate string is:

- A) strcat() B) strconcat()
C) strlen() D) stringcat()

13. When a class is derived from a class which is a derived class – then it is referred to as

- A) Multiple inheritance B) Hierarchical inheritance
C) Single inheritance D) Multilevel inheritance

14. Which one of the following tracks a user visits a website?

- A) spyware B) cookies C) worms D) Trojans

15. Expansion for TSCII is

- A) Tamil Script Code for Information Interchange
B) Tamil System Code for Information Interchange
C) Tamil Service Code for Information Indian
D) Tamil Script Computer for Information Interchange

MODEL QUESTION PAPER – 3 - ANSWERS FOR OBJECTIVES

1. B	2. C	3. B	4. A	5. C	6. A	7. A	8. A
9. A	10. B	11. A	12. A	13. D	14. B	15. A	

PART – II

Answer any six questions.

Question No. 24 is compulsory

6 X 2 = 12

16. What is Digital Camera?
17. What is multi-processing?
18. What is System Software?
19. What is Open Source?
20. What is Literals?
21. What is Recursion?
22. What is the function of Constructor?
23. List the operators that cannot be overloaded.
24. What is inheritance?

PART – III

Answer any six questions.

Question No. 32 is compulsory

6 X 3 = 18

25. Differentiate PROM and EPROM.
26. What are the advantages and disadvantages of Time-sharing features?
27. What is use of Based On Priority.
28. What is Application Window?
29. What is an Implicit type conversion?
30. What is the difference between isupper() and toupper() functions?
31. With note an Array of strings.
32. What is the constructor overloading?
33. Give an Syntax for derived class?

PART – IV

Answer all the questions:

5 X 5 = 25

34. Explain the different types of Printers.

(OR)

Explain the main purpose of an Operating System.

35. Explain the Process Management.

(OR)

Explain the Moving Files and Folders.

36. Explain the Input / Output Operators.

(OR)

Explain if statement in C++.

37. Write C++ program to calculate the factorial of an integer.

(OR)

Mention the differences between constructor and destructor

38. What are the rules for operator overloading?

(OR)

What are the points to be noted while deriving a new class?

MODEL QUESTION PAPER - 4

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

1. What was the component used in fourth generation computers?

- A) Vacuum tubes B) Transistors
C) Integrated Circuits D) Micro processors

2. The hexadecimal equivalent of the binary sequence 110010011101_2 is

- A) $A9D_{16}$ B) $C9D_{16}$ C) $C8D_{16}$ D) $A8D_{16}$

3. Which is the fastest memory?

- A) Hard disk B) Main memory
C) Cache memory D) Blue-Ray disc

4. Which is Interactive Operating system?

- A) GUI B) CUI C) OS D) UI

5. The basic working platform of Windows is called

- A) Icons B) Desk top C) Start menu D) OS

6. What will be the value stored in the variable a?

a=5;

b=5;

a=a+b++;

- A) 11 B) 5 C) 6 D) 10

PART – II

Answer any six questions.

Question No. 24 is compulsory

6 X 2 = 12

16. What is BCR?
17. What is multi-processing?
18. What is Operating System?
19. What are the advantages of open source?
20. What are Boolean literals?
21. What is the use of setw() format manipulator?
22. Define Functions.
23. What is default constructor?
24. Define function overloading?

PART – III

Answer any six questions.

Question No. 32 is compulsory

6 X 3 = 18

25. Write a short on NOT gate.
26. Differentiate PROM and EPROM.
27. Write a note on Round Robin Scheduling.
28. What are types of Constants?
29. What the User-defined Functions?
30. Write the syntax and an example for structure.
31. What are the points to be noted while deriving a new class?
32. What are ethical issues? Name some.
33. Write a short note about Tamil Programming Language.

PART – IV

Answer all the questions:

5 X 5 = 25

34. Explain the various input devices.

(OR)

Explain the Cache Memory.

35. Explain Memory Management Techniques.

(OR)

Explain the Creating Files Wordpad Application.

36. Explain the Copying Files and Folders

(OR)

Write about Binary operators used in C++.

37. Write a program to find sum of the series

$$S = 1 + x + x^2 + \dots + x^n$$

(OR)

Explain Call by value method with suitable example.

38. Explain array of structures with example

(OR)

Write a note on the basic concepts that supports OOPs?

MODEL QUESTION PAPER - 5

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- 1. Which is a set of instructions which enables the hardware to perform specific task?**
A) Hardware B) Software C) Program D) Device
- 2. Which gate acts as the same way as logical either or?**
A) AND B) XOR C) NAND D) NOR
- 3. Processing takes place to parallel is called**
A) Single user B) Multi user
C) Multi processing D) Time sharing
- 4. The opening screen of Windows is called**
A) Task bar B) Desk top C) Start menu D) Icons
- 5. Which one of the following is string constant?**
A) 'Welcome' B) '1234' C) "1234" D) Welcome
- 6. Which of the following operator returns the size of the data type?**
A) sizeof () B) int () C) long () D) double ()
- 7. The multi way branching statement:**
A) if B) if ... else C) switch D) for
- 8. The different statements in for loop which is separated by**
A) Comma B) Semicolons C) Colon D) Spaces

- 9. Which is return data type of the function prototype of `add(int, int);` ?**
 A) int B) float C) char D) double
- 10. Each element of an array is referred by its**
 A) Number B) Name C) Symbol D) Equation
- 11. The mechanism by which the data and functions are bound together into a single unit is known as**
 A) Inheritance B) Encapsulation
 C) Polymorphism D) Abstraction
- 12. The body of a class is enclosed within a**
 A) [] B) { } C) () D) < >
- 13. In C++ polymorphism is achieved through**
 A) Overloading B) Overriding
 C) Data hiding D) Abstraction
- 14. Which of the following operators cannot be overloaded?**
 A) + B) ++ C) += D) ::
- 15. A class that is used as the basis for inheritance is called a**
 A) Polymorphism B) Inheritance
 C) Encapsulation D) super class

MODEL QUESTION PAPER – 5 - ANSWERS FOR OBJECTIVES

1. B	2. B	3. C	4. B	5. C	6. A	7. C	8. A
9. A	10. B	11. B	12. B	13. A	14. D	15. D	

PART – II

Answer any six questions.

Question No. 21 is compulsory

6 X 2 = 12

16. What is OCR?
17. What is Microprocessors?
18. What is Application Software?
19. Mention the different server distributions in Linux OS.
20. What is Multitasking?
21. What is meant by a token? Name the token available in C++.
22. What is a reference variable? What is its use?
23. Write about strlen() function.
24. What is destructor?

PART – III

Answer any six questions.

Question No. 29 is compulsory

6 X 3 = 18

25. Write short on ISCII.
26. Differentiate CD and DVD.
27. Write a note on SJF.
28. What are the Disk drive icons?
29. What are the data types classified in C++?
30. Differentiate array and structure.
31. What is the constructor overloading?
32. Write a short note on cracking.
33. What is e-Governance?

PART – IV

Answer all the questions:

5 X 5 = 25

34. Explain the different types of Mouse.

(OR)

Explain the characteristic of a microprocessor.

35. Explain the main purpose of an Operating System.

(OR)

What are points are considered when User Interface is designed for an application?

36. Explain the Finding Files and Folders.

(OR)

What are the Rules for naming an identifier?

37. Explain control statement with suitable example.

(OR)

Explain the Parts of a loop.

38. Explain scope of variable with example.

(OR)

Explain the different types of inheritance

MODEL QUESTION PAPER - 6

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

1. Which Computer was used in third generation computers?

- A) IBM 1620 B) ENIAC
C) Honeywell 6000 D) IBM 1401

2. The decimal equivalent of 0.111_2 is

- A) 0.125 B) 0.875 C) 0.625 D) 0.05

3. Which of the following refers to Android operating system's version?

- A) JELLY BEAN B) UBUNTU
C) OS/2 D) MITTIKA

4. Which command is to create a new folder?

- A) File – New – Directory B) File – New – Folder
C) File – Open – Folder D) File – New – New Folder

5. Each time the loop body is executed, the variables are

- A) updated B) unchanged
C) neither A nor B D) destroyed

6. Which one of the following keywords in C++?

- A) literals B) constant C) auto D) real

7. What will be the value stored in the variable S?

N1=10;

N2=20;

S=N1++ + ++N2;

A) 31 B) 32 C) 30 D) 29

8. Which of the following operator returns the size of the data type?

A) sizeof () B) int () C) long () D) double ()

9. Which statement evaluates a condition, if the condition is true then a true-block is executed?

A) if B) if .. else C) nested if D) else if

10. Which functions returns non-zero value if c is a digit or a letter, else it returns 0?

A) isalpha() B) isdigit()
C) islower() D) isalnum()

11. cin>>nun[3]; reads which elements?

A) Fourth B) Third C) Second D) First

12. A structure declaration is given below.

struct Time

{

int hours;

int minutes;

int seconds;

};

Using above declaration which of the following refers to seconds.

A) Time.seconds B) Time::seconds
C) seconds D) t. seconds

13. Which is the technique of building new classes (derived class) from an existing class?

- A) Encapsulation B) Modularity
C) Inheritance D) Polymorphism

14. The body of a class is enclosed within a

- A) [] B) { } C) () D) < >

15. A class is derived from a class which is a derived class itself, then this is referred to as

- A) multiple inheritance B) multilevel inheritance
C) single inheritance D) double inheritance

MODEL QUESTION PAPER – 6 - ANSWERS FOR OBJECTIVES

1. C	2. B	3. A	4. B	5. A	6. C	7. A	8. A
9. A	10. D	11. A	12. D	13. C	14. B	15. B	

PART – II

Answer any six questions.

Question No. 21 is compulsory.

6 X 2 = 12

16. What is Plotter?
17. What is multi-processing?
18. Differentiate Files and Folders.
19. What is Statement?
20. What is Recursion?
21. What are the types of 2-D array memory representations?
22. Give an syntax for const?
23. What is a nested structure?
24. What is Modularity?

PART – III

Answer any six questions.

Question No. 29 is compulsory.

6 X 3 = 18

- 25 Write short on ISCII.
- 26 What is RISC?
- 27 What is Fault Tolerance?
- 28 Write an algorithm for finding minimum of two numbers.
- 29 What is an Implicit type conversion?
- 30 What is the tolower() function?
- 31 What is Traversal?
- 32 What are the Array of Strings?
- 33 What is Encapsulation?

PART – IV

Answer all the questions.

5 X 5 = 25

34. Explain decimal to binary conversion using Sum of powers of 2 method.

(OR)

Explain the XOR Gate.

35. Explain the Digital Versatile Disc (DVD).

(OR)

Explain the concept of a Distributed Operating System.

36. Explain What are the ways to create a new Folder?

(OR)

Write about Binary operators used in C++.

37. Explain if statement in C++.

(OR)

Explain While loop in C++.

38. Write a note on the basic concepts that supports OOPs?

(OR)

Explain the different types of inheritance

MODEL QUESTION PAPER - 7

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- 1. Who invented the computer mouse?**
A) Bill English B) Douglas Engelbart
C) VLSI D) Charles
- 2. The binary value of 0.6875 is**
A) 0.1101 B) 0.1001 C) 1.1011 D) 0.1011
- 3. Which memory offers a fast read and write access time?**
A) Cache B) Flash C) Hard disk D) Ble-Ray
- 4. Which operating system should be robust, when there is a fault?**
A) Fault B) Multi C) FAT D) GUI
- 5. Who was the named his new language as "C with Classes"?**
A) Charles Babbage B) Bjarne Stroustrup
C) Bill Gates D) Sundar Pichai
- 6. The result of the expression $R = (a = =D)\&\&(ch != t)$ is Where $a=5$, $b= 6$, $ch = 'n'$ and $t = '4'$**
A) True B) False C) 0 or False D) Error
- 7. This can be used as alternate to endl command:**
A) \t B) \b C) \0 D) \n

PART – II

Answer any six questions.

Question No. 22 is compulsory.

6 X 2 = 12

16. What is Digital Camera?
17. What is Access Time?
18. What are the different Operating Systems used in computer?
19. Define Iteration.
20. What is an strcat() functions?
21. What is Class?
22. What is the function of Constructor?
23. What is the use of overloading a function?
24. What are the different types of inheritance?

PART – III

Answer any six questions.

Question No. 29 is compulsory.

6 X 3 = 18

25. What is Binary Number System?
26. Explain the Compact Disc (CD).
27. What is use of Based On Priority.
28. What are the disadvantages of a flowchart?
29. What is void data type?
30. Write a note on Object Oriented Programming.
31. List some of the features of modular programming
32. What is the Need for Inheritance?
33. Write a short note on Tamil Virtual Academy.

PART – IV

Answer all the questions.

5 X 5 = 25

34. Explain decimal to binary conversion using Repeated Division by 2 method.

(OR)

Explain the Derived gates with expression and truth table.

35. Explain the Blu-Ray Disc.

(OR)

Explain the Searching Files or Folders using Computer Icon.

36. Explain the Algorithm Design Techniques.

(OR)

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

37. Explain the rules for switch statements.

(OR)

Explain do-while loop in C++.

38. What are the advantages of OOPs?

(OR)

What is piracy? Mention the types of piracy? How can it be prevented?

MODEL QUESTION PAPER - 8

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- 1. What was the year of Analytical Engine?**
A) 1899 B) 1642 C) 1837 D) 1633
- 2. The hexadecimal equivalent of the binary sequence 110010011101_2 is**
A) $A9D_{16}$ B) $C9D_{16}$ C) $C8D_{16}$ D) $A8D_{16}$
- 3. Which of the following is a multi-user Operating system?**
A) MSDOS B) UNIX C) DOS D) OS
- 4. A 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
- 5. Which of the following is not an invariant of the assignment? $m, n := m + 2, n + 3$.**
A) $m \bmod 2$ B) $n \bmod 3$
C) $3 \times m - 2 \times n$ D) $2 \times m - 3 \times n$
- 6. Which are the reserved words which convey specific meaning to the C++ compiler?**
A) Keywords B) Identifiers
C) Literals D) Expression

7. What will be the value stored in the variable a?

a=5;

b=5;

a=a+b++;

A) 11 B) 5 C) 6 D) 10

8. The range of signed char is

A) -128 to 127 B) 0 to 255
C) -128 to 127 D) -32768 to 32767

9. Which is another form of if that allows for this kind of either or condition by providing an else clause?

A) if B) if .. else C) nested if D) else if

10. Which of the following is the scope operator?

A) > B) & C) % D) ::

11. Which function is used to check whether a given character is a digit or not?

A) isalpha() B) isdigit() C) islower() D) isalnum()

12. The size of the array must always be

A) Positive B) Negative
C) Float D) Double

13. When accessing a structure member ,the identifier to the left of the dot operator is the name of

A) structure variable B) structure tag
C) structure member D) structure function

14. Encapsulation is about binding the data variables and functions together in class it can also be called

A) Data binding B) Data Abstraction
C) Inheritance D) Polymorphism

15. The member function defined within the class behave like

- A) inline functions B) Non inline function
C) Outline function D) Data function

MODEL QUESTION PAPER – 8 - ANSWERS FOR OBJECTIVES

1. C	2. B	3. B	4. D	5. D	6. A	7. D	8. A
9. B	10. D	11. B	12. A	13. A	14. A	15. A	

PART – II

Answer any six questions.

Question No. 21 is compulsory.

6 X 2 = 12

16. What is BCR?
17. What are the security management features available in Operating System?
18. What is Multitasking?
19. What is the difference between an algorithm and a program?
20. What is Pointer expression?
21. What is an strcmp() functions?
22. What is use of getline function?
23. What is polymorphism?
24. Write the General Form of a class definition.

PART – III

Answer any six questions.

Question No. 29 is compulsory.

6 X 3 = 18

25. What is Octal Number System?
26. Write a note on Round Robin Scheduling.
27. Differentiate CD and DVD.

28. Give Syntax for Array declaration?
29. What is Need for Constructors?
30. What do you mean by overriding?
31. What are the rules for function overloading?
32. What is the role of firewalls?
33. Write a short note about Tamil Programming Language.

PART – IV

Answer all the questions.

5 X 5 = 25

34. Explain briefly about non-impact printers.

(OR)

How AND and OR can be realized using NAND and NOR gate.

35. How the read and write operations are performed by a processor?
Explain.

(OR)

Arrange the memory devices in ascending order based on the access time.

36. What are points are considered when User Interface is designed for an application?

(OR)

Explain the Execution of C++ Program.

37. Explain if-else statement in C++.

(OR)

Explain the Parts of a loop.

38. Explain array of structures with example

(OR)

What are the rules for operator overloading?

MODEL QUESTION PAPER - 9

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

- 1. What was the period of fifth generation computers?**
A) 1942 – 1955 B) 1955 – 1964
C) 1964 – 1975 D) 1980 – till date
- 2. Which number system occupies less memory space for storing large numbers?**
A) Binary B) Decimal C) Octal D) Hexadecimal
- 3. Which is used to write information into the Blu-ray disc?**
A) Blue-violet laser B) Ultra-violet rays
C) Blue-ray D) DVD
- 4. Which versions introduced Internet Explorer 8?**
A) Windows 7 B) Windows 10
C) Windows Vista D) Windows XP
- 5. Testing the loop condition and executing the loop body once is called.**
A) iteration B) condition
C) sequential D) none of these
- 6. Which are the essential elements to construct C++ programs?**
A) Keywords B) Identifiers C) Literals D) Expression

- 7. Find out the value assigned to m, where n1 = 7, n2 = 8
m=(n1>n2)?n1:n2**
- A) 7 B) 8 C) True D) False
- 8. The range of int is**
- A) -127 to 128 B) 0 to 255
C) -128 to 127 D) -32768 to 32767
- 9. An if statement contains another if statement is called**
- A) if B) if .. else C) nested if D) else if
- 10. Which of the following function is with a return value and without any argument ?**
- A) x=display(int, int) B) x=display()
C) y=display(float) D) display(int)
- 11. Which function will return a non-zero value, if the given character is a lower case alphabet, and 0 otherwise?**
- A) isalpha() B) isdigit()
C) islower() D) isalnum()
- 12. Arrays in C++ belong to which of the following data type?**
- A) Basic B) Derived
C) User defined D) Primitive
- 13. Expansion of OOP:**
- A) Objected Oriented Languages
B) Objected Oriented Programming languages
C) Object Oriented Programming
D) Object Oriented Languages
- 14. Which of the following function can be overloaded?**
- A) Constructor B) Destructor
C) Function overloading D) Operator overloading

15. The class to be inherited is called base class

- A) Polymorphism B) Inheritance
C) Encapsulation D) Base class

MODEL QUESTION PAPER – 9 - ANSWERS FOR OBJECTIVES

1. D	2. A	3. A	4. A	5. A	6. A	7. B	8. D
9. C	10. B	11. C	12. B	13. C	14. A	15. D	

PART – II

Answer any six questions.

Question No. 21 is compulsory.

6 X 2 = 12

16. What is Multimedia Projectors?
17. What is System Software?
18. Differentiate Thunderbird and Firefox in Ubuntu OS.
19. Define a loop invariant.
20. What is an strlen() functions?
21. What is the syntax to declare two – dimensional array.
22. What is Data Abstraction?
23. What is Constructor?
24. What is function overloading?

PART – III

Answer any six questions.

Question No. 29 is compulsory.

6 X 3 = 18

25. What is radix of a number system? Give example.
26. Write a short on XNOR gate.
27. What is Application Window?
28. Describe the differences between keywords and identifiers?
29. What are importance of void data type.
30. What class comprises?
31. What are the Calling Copy constructors?

32. Write the Characteristics of Destructors.
33. Write about encryption and decryption.

PART – IV

Answer all the questions.

5 X 5 = 25

34. Explain the procedure to convert fractional decimal to Binary.

(OR)

Explain the XNOR Gate.

35. Explain the main purpose of an Operating System.

(OR)

Explain the Process Management.

36. How will you Starting and Closing Application?

(OR)

Explain the : Alternative to if-else in C++.

37. Explain the Nested switch in C++.

(OR)

Explain scope of variable with example.

38. Explain the different visibility mode through pictorial representation

(OR)

Write the different types of cyber attacks.

MODEL QUESTION PAPER - 10

XI - COMPUTER SCIENCE

Time Allowed: 15 minutes + 3 Hours

Maximum Marks: 70

PART – I

Note: (i) All questions are compulsory. 15 x 1 = 15

(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

1. Which of the following holds the data and instructions?

- A) Input unit B) Output unit
C) Memory unit D) Control unit

2. In binary numbers, the signed positive number has a prefix?

- A) 0 B) 1 C) + D) -

3. The capacity of Blue ray disc is more than five times of

- A) HDD B) CD C) DVD D) IBM

4. The iterative statement is commonly known as a

- A) loop B) block
C) sequential D) none of these

5. What will be the value of x?

a=10

b=10

x=(a<B)?a*a:b%a;

- A) False B) True C) 100 D) 0

6. Which switch statement is a multi-way branch statement?

- A) if B) if-else-if C) nested if D) switch

- 7. Which function is used to check whether a character is alphanumeric or not.**
A) isalpha() B) isdigit() C) isalnum() D) islower()
- 8. The array subscript always commences from**
A) 1 B) 0 C) - 1 D) 10
- 9. Structure definition is terminated by**
A) : B) } C) ; D) ::
- 10. The mechanism by which the data and functions are bound together into a single unit is known as**
A) Encapsulation B) Data Abstraction
C) Inheritance D) Polymorphism
- 11. Which is a way to bind the data and its associated functions together?**
A) Class B) Object C) Function D) Structure
- 12. Which of the following function cannot be overloaded?**
A) Constructor B) Destructor
C) Function overloading D) Operator overloading
- 13. Which operator cannot be overloaded?**
A) :: . sizeof ?:
C) + - * ?:
B) : sizeof + *
D) + . ? sizeof
- 14. The ability of the function to process the message in more than one form is called as**
A) Function overloading B) Operator overloading
C) Polymorphism D) Constructor
- 15. The type of inheritance that reflects the transitive nature is**
A) Single Inheritance B) Multiple Inheritance
C) Multilevel Inheritance D) Hybrid Inheritance

MODEL QUESTION PAPER – 10 - ANSWERS FOR OBJECTIVES

1. C	2. A	3. C	4. A	5. D	6. D	7. C	8. B
9. C	10. A	11. A	12. B	13. C	14. A	15. C	

PART – II

Answer any six questions.

Question No. 21 is compulsory.

6 X 2 = 12

16. What is OCR?
17. What are derived gates?
18. What is Trash?
19. Distinguish between a condition and a statement.
20. What is Literals?
21. What is an strcpy() functions?
22. What is Objects?
23. Write down the importance of destructor.
24. List the operators that cannot be overloaded.

PART – III

Answer any six questions.

Question No. 29 is compulsory.

6 X 3 = 18

25. What is Hexadecimal Number System?
26. What is the use of MDR?
27. Write a note on SJF.
28. What is abstraction?
29. Give an syntax for inline function?
30. With note an Array of strings.
31. Write a note on the features of procedural programming.
32. Write the Characteristics of Constructors.
33. What are the points to be noted while deriving a new class?

PART – IV

Answer all the questions.

5 X 5 = 25

34. Explain briefly about impact printers.

(OR)

How will you convert Binary to Decimal?

35. Write the Theorems of Boolean Algebra.

(OR)

Explain advantages and disadvantages of open source operating systems.

36. What are the Rules for naming an identifier?

(OR)

Explain Switch statement in C++.

37. Explain for loop in C++.

(OR)

Explain call by value with respect to structure.

38. Mention the differences between constructor and destructor

(OR)

What are the various crimes happening using computer?
