

PART - I

Choose the best answer:

15×1=15

- 1) _____ year analytical engine was designed.
a) 1832 b) 1837 c) 1834 d) 1838
- 2) The ASCII value for blank space is
a) 48 b) 97 c) 32 d) 65
- 3) Which of the following device identifies the location when address is placed in the memory address register?
a) Locator b) Encoder c) Decoder d) Multiplexer
- 4) Which of the following OS is a commercially licensed operating system?
a) Windows b) Ubuntu c) Fedora d) Redhat
- 5) Under which of the following OS, the option Shift+Delete-permanently deletes a file or folder?
a) windows 7 b) windows 8 c) windows 10 d) MS DOS
- 6) Suppose u, v = 10, 5 before the assignment. What are the values of u and v after the sequence of assignments?
u:=v
v:=u
a) u, v = 5, 5 b) u, v = 10, 5 c) u, v = 5, 10 d) u, v = 10, 10
- 7) 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
- 8) This can be used as alternate to end 1 command:
a) \n b) \t c) \b d) \r
- 9) How many times the following loop will execute?
for (int i=0; i<=10; i++)
a) 0 b) 10 c) 9 d) 11
- 10) Which funtion is used to check whether a character is alphanumeric or not?
a) isalpha() b) isdigit() c) isalnum() d) islower()
- 11) cin>>n[3]; To which element does this statement accepts the value?
a) 2 b) 3 c) 4 d) 5
- 12) Insulation of the data from direct access by the program is called as
a) Data hiding b) Encapsulation c) Polymorphism d) Abstraction
- 13) In C++, polymorphism is achieved through _____.
a) Data Abstraction b) Encapsulation c) Classes d) Overloading
- 14) Which of the following derives a class student from the base class school?
a) school:student b) class student:public school
c) student:public school d) class school:public student
- 15) _____ means trying to get into computer systems in order to steal, corrupt, or illegitimately view data.
a) cracking b) hacking c) malware d) warms

PART - II

Answer ANY SIX questions. Q.No. 21 is compulsory:

6×2=12

- 16) Write short notes about Light pen.
- 17) Write the De Morgan's law.
- 18) What are the security management features available in operating system?
- 19) Define factorial of a natural number recursively.
- 20) What is meant by a token? Name the token available in C++.
- 21) Convert the following if-else to a single conditional statement.
if (x>=10)
 a=m+5
else
 a=m

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- 22) Write a C++ program to accept and print your name.
- 23) Write a syntax for derived class.
- 24) Define E-Governance.

PART - III

Answer ANY SIX questions. Q.No. 30 is compulsory:

6×3=18

- 25) Convert 98.46₁₀ to binary.
- 26) How will you differentiate a flash memory and an EEPROM?
- 27) List out the major differences between Windows and Ubuntu OS.
- 28) What is abstraction?
- 29) What is the difference between Run time error and Syntax error?
- 30) Write about strcmp() function.
- 31) What do you mean by modularization and software reuse?
- 32) Which situation a copy constructor is called?
- 33) Write about encryption and decryption.

PART - IV

Answer ALL the questions:

5×5=25

- 34) Explain briefly about non-impact printers with example. **(OR)**
Explain the characteristics of a microprocessor.
- 35) Explain the main purpose of an operating system. **(OR)**
Explain detail about the mouse actions.
- 36) Explain call by value method with suitable example. **(OR)**
Explain about main features of Object Oriented Programming.
- 37) Write about Binary operators used in C++. **(OR)**

Debug the following program:

```
% include (iostream.h)
Class A
{
    public;
    int a1, a2: a3;
    Void getdata[]
    {
        a1=15;
        a2=13;
        a3=13;
    }
}
class B: public A()
{
    PUBLIC
    voidfunc()
    {
        int b1, b2, b3;
        A::getdata[];
        b1=a1;
        b2=a2;
        b3=a3;
        cout<<b1>>"\t"<<b2>>"\t"<<b3;
    }
}
void main()
{
    B der;
    der 1:func()
    getch();
}
```

- 38) Explain Switch statement with example. **(OR)**
What is function overloading? What are the rules for function overloading?