

PART - A

I Choose and write the correct answer:

15x1=15

- Which was the first generation of computer based on?
a) ENIAC b) UNIVAC c) IBM 1620 d) UNIVAC 1108
- How many characters can be handled in Binary Coded Decimal System?
a) 128 b) 255 c) 256 d) 64
- Which one of the following is work as bidirectional?
a) Data bus b) Communicating bus c) Control bus d) Address bus
- Interactive Operating System provides
a) Graphics User Interface (GUI) b) Data Distribution
c) Security Management d) Real Time Processing
- The Aero Peak interface was introduced in
a) Windows 2000 b) Windows 7 c) Windows 8 d) Windows 10
- When we do operations on data, we need to store the results in
a) Data b) Algorithm c) Variables d) Functions
- Suppose $u, v = 10, 5$ before the assignment. What are the values of u and v after the sequence of assignments?
i) $u := v$
ii) $v := u$
a) $u, v = 5, 5$ b) $u, v = 5, 10$ c) $u, v = 10, 5$ d) $u, v = 10, 10$
- is an algorithm design technique, closely related to induction.
a) Specification b) Algorithm c) Loop d) Recursion
- Who developed C++?
a) Charles Babbage b) Bjarne Stroustrup c) Bill Gates d) Sundar Pichai
- Which of the following is the exit control loop?
a) for b) while c) do...while d) if...else
- Which of the following is the scope operator?
a) ? b) & c) % d) ::
- What will happen when the structure is declared?
a) it will not allocate any memory b) it will allocate the memory
c) it will be declared and initialized d) it will be only declared
- State whether the following statements about the constructor are True or False.
i) Constructors should be declared in the private section.
ii) Constructors are invoked automatically when the objects are created.
a) True, True b) True, False c) False, True d) False, False
- Which of the following refers to a function having more than one distinct meaning?
a) Function overloading b) Member overloading
c) Operator overloading d) Operations overloading

15. e-commerce means

- a) electric data exchange b) electronic data exchange
c) electronic commerce d) electronic commercialization

PART - B

II. Answer any six questions. Question No. 24 is compulsory.

6x2=12

- What is the function of an ALU?
- Convert $(96)_{10}$ into Binary number.
- What is HDMI?
- What are the different Operating Systems used in computer?
- Define an algorithm.
- Why is char often treated as integer data type?
- Define structure. What is its use?
- Why derived class is called power packed class?
- Correct the following code segment.
if(x = 1)
 p = 100;
else
 p = 10

PART - C

III. Answer any six questions. Question No. 33 is compulsory.

6x3=18

- What are the characteristics of a computer?
- Differentiate CD and DVD.
- Explain the process management algorithms in Operating System.
- Define a function to double a number in two different ways.
(i) $n + n$ (ii) 2×2
- What are modifiers? Write their use.
- What are the information the prototype provides to the compiler?
- What are advantages of declaring constructors and destructor under public accessibility?
- Write about encryption and decryption.
- a) Add: $1011_2 + 1001_2$
b) Subtract: $1001010_2 + 10100_2$

IV. Answer all the questions.

5x5=25

34. a) Explain the following:

- i) Inkjet Printer ii) Multimedia projector iii) Bar Code / QR code reader

(OR)

b) Explain the fundamental gates with expression and truth table.

35. a) Explain the types of ROM.

(OR)

b) Explain advantages and disadvantages of open source operating systems.

36. a) Exchange the contents: Given two glasses marked A and B. Glass A is full of apple drink and glass B is full of grape drink. For exchanging the contents of glasses A and B, represent the state by suitable variables, and write the specification of the algorithm.

(OR)

b) Explain control statement with suitable example.

37. a) Explain scope of variable with an example.

(OR)

b) Explain call by value with respect to structure.

38. a) Write the different types of cyber-attacks.

(OR)

b) Debug the following program.

Output

15

14

13

Program`% include (iostream.h)``#include <<conio.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 ()``{``clrscr ()``B der :``der 1 : func ();``getch ();``}`