

Total number of printed pages : 3

NB/XI/CSC/1

2021
COMPUTER SCIENCE

Total marks : 70

Time : 3 hours

General instructions:

- i) *Approximately 15 minutes is allotted to read the question paper and revise the answers.*
- ii) *The question paper consists of 32 questions. All questions are compulsory.*
- iii) *Marks are indicated against each question.*
- iv) *Internal choice is given in some questions.*

N.B: *Check that all pages of the question paper is complete as indicated on the top left side.*

- | | | |
|-----|---|----------|
| 1. | What is compiler? | 1 |
| 2. | What is a turnaround time? | 1 |
| 3. | What is the full form of EBCDIC? | 1 |
| 4. | Define system bus. | 1 |
| 5. | What is meant by spooling? | 1 |
| 6. | Define access time. | 1 |
| 7. | How is a variable created? | 1 |
| 8. | What is abstraction? | 1 |
| 9. | What is #include directive? | 1 |
| 10. | What is cascading? | 1 |
| 11. | Define run time error. | 1 |
| 12. | Mention one advantage of flowchart. | 1 |
| 13. | What are literals in C++? How many types of literals are allowed in C++? | 2 |
| 14. | Define syntax error. Give one example. | 2 |
| 15. | What would be the output of the following program?
<code>#include<iostream.h></code>
<code>void main()</code> | 2 |

```
{
    int a=1, b=2 , c=4;
    a+=c + ++b/c;
    cout<< "a"<<a;
}
```

- 16. Explain two types of compile time errors. 2
- 17. Explain in brief testing and debugging of program. 2
- 18. Write an algorithm to compute factorial of a number. 2
- 19. Find the output of the following program segment(assuming all required header files are included in): 2
void main
{
 for(int i=1 ; i<=5 ; i++)
 {
 cout<<endl;
 for(int j=0 ; j<=i ; j++)
 cout<<"*"<<"\t";
 }
}
- 20. What are the purposes of the following mathematical functions? 2
a) ceil(x)
b) fabs(x)
- 21. Differentiate between register storage class specifier and static storage class specifier. 2
- 22. What is subscript? What is the purpose of subscript in an array? 2
- 23. What is the purpose of function prototype? 2
- 24. a. Describe different number systems in detail. 4
Or
b. Differentiate between impact and non-impact printer.

25. Explain the following operators: 4
i. Prefix operator
ii. Binary operator
iii. Sizeof operator
iv. Comma operator
26. Mention four characteristics of a good program. 4
27. Explain the format of the 'for' loop: 4
i. Start condition
ii. Continue condition
iii. Re-evaluation
iv. Program statements
28. Write a C++ program to implement Fibonacci series using while loop. 4
29. a. Differentiate between call by value and call by reference. 4
Or
b. Write a C++ program to swap two numbers without using a third variable.
30. a. Write a C++ program to find sum of two numbers using function prototype. 4
Or
b. What is the difference between while () and do while () loop?
31. Write a C++ program to input an array num with 10 different integer values and search a particular value and its position in array using linear search. 4
32. a. Give two similarities and two differences between a structure and a class. 4
Or
b. Explain the following string manipulation functions:
i. Strcpy(s1,s2)
ii. Strcat(s1,s2)
iii. Strcmp(s1,s2)
iv. Strupr(s1)
