SS COACHING
RISE FROM FAILURE
Estd.2001

This Question Paper consists of 39 questions and 12 printed pages.

इस प्रश्न-पत्र में 39 प्रश्न तथा 12 मुद्रित पृष्ठ हैं।

Roll No.
अनुक्रमांक

Code No. कोड नं० **67/TUS/2**

Set/सेट **A**

COMPUTER SCIENCE
(330)

Day and Date of Examination ....
(परीक्षा का दिन व दिनांक)

Signature of Invigilators 1. ....
(निरीक्षकों के हस्ताक्षर)

2. ....

General Instructions :

1. Candidate must write his/her Roll Number on the first page of the Question Paper.

2. Please check the Question Paper to verify that the total pages and total number of questions contained in the Question Paper are the same as those printed on the top of the first page. Also check to see that the questions are in sequential order.

3. Making any identification mark in the Answer-Book or writing Roll Number anywhere other than the specified places will lead to disqualification of the candidate.

4. Write your Question Paper Code No. 67/TUS/2, Set A on the Answer-Book.

COMPUTER SCIENCE
(330)

Time : 3 Hours]   [Maximum Marks : 60

Note : (i)   This question paper consists of 39 questions in all.

      (ii)   All questions are compulsory.

     (iii)   Marks are given against each question.

     (iv)   **Section–A** consists of

        (a)   Q. Nos. **1** to **12**—Multiple Choice-type Questions (MCQs) carrying *1* mark each. Select and write the most appropriate option out of the four options given in each of these questions. An internal choice has been provided in some of these questions. You have to attempt only **one** of the given choices in such questions.

        (b)   Q. Nos. **13** to **24**—carry *1* mark each and Q. Nos. **25** to **27**—Objective-type Questions of *2* marks each (with 2 sub-parts of *1* mark each). An internal choice has been provided in some of these questions. You have to attempt only one of the given choices in such questions. Attempt these questions as per the instructions given for each of the questions.

     (v)   **Section–B** consists of

        (a)   Q. Nos. **28** to **35**—Very Short Answer-type Questions carrying *2* marks each to be answered in the range of *30* to *50* words.

        (b)   Q. Nos. **36** and **37**—Short Answer-type Questions carrying *3* marks each to be answered in the range of *50* to *80* words.

        (c)   Q. Nos. **38** and **39**—Long Answer-type Questions carrying *4* marks each to be answered in the range of *80* to *120* words.

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(1)   Answers of all questions are to be given in the Answer-Book given to you.

(2)   15 minutes time has been allotted to read this question paper. The question paper will be distributed at 2:15 p.m. From 2:15 p.m. to 2:30 p.m., the students will read the question paper only and will not write any answer on the Answer-Book during this period.

SECTION—A

1. *(i)*   The _____ tag in HTML allows the user to create an image in Web page.   1

     (A)   <image>   (B)   <img>

     (C)   <imag>   (D)   <im>

Or

(ii) The _____ attribute is used to specify the URL of image for the Web page.

   (A) src   (B) align

   (C) border   (D) height

2. (i) File > Print in presentation is equal to

   (A) Ctrl+N   (B) Ctrl+Q

   (C) Ctrl+P   (D) Ctrl+S   1

Or

(ii) Ctrl+N in presentation is equal to

   (A) Save   (B) Save As

   (C) New   (D) Print

3. <OL>tag is used to create an _____ list in HTML.   1

   (A) unordered   (B) ordered

   (C) organised   (D) unorganised

4. sqrt(x) is a _____ function in C++.   1

   (A) string   (B) mathematical

   (C) character   (D) text

5. (i) Which of the following is used for making a text italic in HTML?   1

   (A) <italic>   (B) <italics>

   (C) <i>   (D) <textitalic>

Or

(ii) Which of the following is used for displaying the text "NIOS" in **BOLD** <u>UNDERLINE</u> in HTML?

   (A) <bu>NIOS</bu>   (B) <u>NIOS</u>

   (C) <u>NIOS</u>   (D) <ub>NIOS</ub>

6. (i) _____ is used to represent tags in HTML.   1

   (A) [ ]   (B) < >

   (C) ( )   (D) { }

Or

(ii) Face is the attribute of _____ tag.

   (A) <body>   (B) <html>

   (C) <font>   (D) <image>

7. *(i)* A pointer is a variable that represents the lcoation of a data item such as

    (A) variable   (B) array element

    (C) Both (A) and (B)   (D) program   1

Or

(ii) Find the output produced by the following program segment. Assume all the header functions are included:

```
void main()
{
    int a=22;
    int *b=&a; *b=*b+2;
    cout<<*b;
}
```

8. _____ file format is the best option for images with transparency effects.   1

    (A) jpg   (B) jpeg

    (C) gif   (D) png

9. _____ attribute is used to specify the thickness in the <HR> tag.   1

    (A) Width   (B) Size

    (C) Border   (D) Noshade

10. _____ is a component of the OpenOffice Impress Windows which displays the name of the file and name of the application along with minimize, maximize and close buttons.   1

    (A) Workspace   (B) Title bar

    (C) Cell   (D) Status bar

11. _____ features allows us to embed objects like charts, pictures, audio, video, etc. in our document.   1

    (A) Object-linked evidence

    (B) Object linking and embedding

    (C) Oral limited embedding

    (D) None of the above

12. *(i)* Autofill feature of OpenOffice Calc supports which of the following datatypes?   1

    (A) Numerical   (B) String

    (C) Both Numerical and String   (D) None of the above

Or

(ii) Active cell in OpenOffice Calc is identified by having

    (A)   yellow colour filled on it   (B)   red colour border across it

    (C)   thick black outline   (D)   thick red outline

13. Expand ISP.   1

14. *(a)* The octal equivalent of $(200)_{10}$ is _____.   1

                Or

    (b) The binary equivalent of 45 is _____.

15. *(a)* What will be the output produced by the following program if the value of the variable x is 15 and y is 6?   1

```
#include<iostream.h>
int main()
{
  int x, y;

  cin>>x>>y;
  if(x>y)
  cout<<"Smiley face";
  else
  cout<<"Sad face";
}
```

                Or

    (b) What will be the output produced by the following program if the value of the variable x is 3 and y is 4?

```
#include <iostream.h>
void main()
{
  int x, y, z;
    cin>>x;
  cin>>y;
z=x*x+y;
if(x>y)
    cout<<"Good morning";
  else
    cout<<"Good evening";
}
```

16. *(a)* The decimal equivalent of $(D2A)_{16}$ is _____.   1

                Or

   (b) The decimal equivalent of the binary number is 1100 is _____.

17. *(a)* Which tag is used to create a paragraph in a Web page?   1

                Or

   (b) Which tag is used to create link break in a Web page?

18. *(a)* What is the header file for acos(x)?   1

                Or

   (b) What is the header file for isdigit(c)?

19. What is the ASCII value of 'A'?   1

20. Expand WWW.   1

21. Consider the following program. What output will be produced if the value for the variable ch is entered as 'B'?   1

```cpp
#include <iostream.h>
void main()
{
    char ch;
    cin>>ch;
    switch(ch)
    {
    case 'A' :      cout<<"A Grade"; break;
    case 'B' :      cout<<"B Grade";
    case 'C' :      cout<<"C Grade"; break;
    case 'D' :      cout<<"D Grade"; break;
    default  :
    cout<<"NO Grade";
    }
}
```

22. *(a)* What will be the output produced by the following code?   1

```
#include<iostream.h>
void main()
{
  int i, s=0;
   for(i=1;i<5;i++)
    {
      s=s–i;
    }
       cout<<s;
}
```

Or

(b)
```
#include <iostream.h>
int main()
{
int i=0, s=0;
while(i<5)
  {  s=s–i;
     i++;
  }
  cout<<s;
}
```

23. *(a)* Write a C++ program to create a structure named STUDENT using the following members :   1

Name : string of 20 characters

Marks : integer number

Or

(b) What does the following statement do?
```
typedef int b;
```

24. What will be the output produced by the following code snippet? Assume all header files included :   1

```
#include<iostream.h>
void change(int);
void main()
{
```

```
    int a = 5;
    cout<<"a="<<endl;
    change(a);
    cout<<"a="<<a;
}
void change(int b)
{
    b=20;
}
```

25. Fill in the blanks (any *two*) : 1×2=2

   (a) The output stream in file handling requires _____ header file.

   (b) seekg() moves _____ to a specified location.

   (c) Input pointer is also known as _____.

   (d) The function open() have _____ parameters.

26. State whether the following statements are True or False (any *two*) : 1×2=2

   (a) Considering the structure variable student, student ptr declares a pointer variable ptr to a student.

   (b) Object pointers are used to create objects during runtime.

   (c) A pointer is a user defined function which is equal to a simple variable in C++.

27. Give one word for the following blanks (any *two*) : 1×2=2

   (a) _____ means arranging data in ascending or descending order.

   (b) _____ is the combination of absolute and relative referencing.

   (c) _____ feature of OpenOffice Calc blocks or hides the data based on specified criteria for a column.

   (d) A _____ is a form of pictorial representation of data.

   (e) _____ is used as prefix in front of formula.

SECTION—B

28. *(a)* Explain radio wave transmission.   2

     Or

(b) Explain router.

29. *(a)* What do you mean by data integrity?   2

     Or

(b) Define relational database.

30. Write SQL queries for the following based on the TEACHER table given below :   2

TEACHER			
TID	NAME	AGE	GENDER
T01	ARJUN	36	M
T02	RAJU	45	M
T03	SUMA	58	F
T04	KIRAN	44	F
T05	JENNI	38	F

(a) Insert the record T06, VARUN, 45, M into the table TEACHER.

(b) Display the details of the teachers whose age is above 40.

31. Write the steps to move a selected text in Office Writer.   2

32. Define empty element in HTML and also provide an example.   2

33. Consider the following code segment :   2

```
#include<string.h>
#include<string.h>
struct emp { char empname[20]; int salary; };
void main(){
_____// statement 1
```

```
cin >> struct6.empname;
_____ // statement 2

}
```
Complete the above code for the following :

Statement 1 : Create two variables struct6 and struct7 of type emp.

Statement 2 : Display the value of the variable empname of the structure variable struct6.

34. Write SQL queries to create the following TEACHER table :   2

TEACHER		
TID	VARCHAR(6)	PRIMARY KEY
NAME	VARCHAR(15)	
AGE	INT(2)	
GENDER	CHAR	

Or

Define decimal and date datatypes.

35. Define the following terms (any *two*) :   1×2=2

(a) Object

(b) Member functions

(c) Destructor

(d) Parameterized constructor

36. Create a Web page using the following instructions :   3

(a) The background of the Web page should be yellow.

(b) The heading "My Web page" should be in center of the Web page in Arial Bold font with size 6.

(c) An image to be set having the file name "niosB.jpg" with height=20 and width=15.

37. Define the following terms (any *three*) :   1×3=3

   (a) Tuple

   (b) Candidate key

   (c) Schema

   (d) Logic data model

   (e) Relation

38. *(a)* Answer the questions from *(i)* to *(iv)* based on the following code, assume all header files are included :   4

```
class Emp{
int Empno;
char Ename[20];
float salary;
protected:
void Res();
public:
Emp();
void Enr();
void Disp();
};
class Emp1{
long Emp1code;
char Emp1Name[20];
protected:
float salary2;
public:
Emp1();
void Enter();
void Show();
};
class Training: public Emp, private Emp1{
long Trcode[10];
char TrName[50];
char StartDate[8], EndDate[8];
public:
Training();
void Commence();
void CDetail();
};
```

(i) Write the names of member functions which are accessible from objects of Class Training.

(ii) Write the names of all the data members which is/are accessible from member function Commence of Class Training.

(iii) Write the names of all the members which are accessible from objects of Class Emp1.

(iv) Which type of inheritance is illustrated in the above C++ code?

Or

(b) Define multilevel inheritance. Display the structure by taking an example with proper syntax.

39. (a) Write a program to create an array of N elements, accept a location and number from the user. Insert the accepted number after the location in the array and print the new array.   4

Or

(b) Write a C++ program that accepts two numbers from the user and passes to a function, the function will subtract the accepted numbers and return the difference to the main program which display the output to the user.

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