St. Teresa School
A Temple of Learning
Shakti Khand – II, Indirapuram, Ghaziabad
Holiday Assignment (2018-19)
Class: XI

English

Paste one prototype of advertisements (one each) in a separate folder.

2.Make notes on ch-'Landscape of the soul','Ailing planet'

3. Watch the movie'seabiscuit' and write a summary.

Chemistry

- Worksheet of Atomic structure given in class.

- Write Experiments discussed in class.

Maths

TOPICS : CHAPTER 2 & 3

DO REVISE IDENTITIES , TYPES OF FUNCTION AND RELATION.

Biology

COMPLETE THE PROJECT WORK AND PRACTICAL RECORD.

DO THE GIVEN WORKSHEET IN BIOLOGY COPY.

Fine Arts

1   Draw landscape including any monument by pencil shading.

2   Make a still life of fruits by charcoal/ water colour.

3   Go for a nature walk and make a composition including your observation from the nature walk.

Physics

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English

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Accountancy

Practice atleast 40 questions from Accounting Equation and atleast 20 questions from basis of accounting (cash basis and accrual basis) (Reference book D.K.Goel)

Do the revision of PT -1 Syllabus

B.St.

Q1-collect information about Business family of India.Find out their role in India n economy. Prepare a project file for this.

Q2Meet at least four renowned business man of your surroundings.COllect information of their business; business strategy; business barriers which they had faced . Prepare a report on this subject.

Maths

TOPICS : CHAPTER 2 & 3

DO REVISE IDENTITIES , TYPES OF FUNCTION AND RELATION.

Economics

1 Explain consumer's equilibrium in case of single commodity.
2 Explain consumer's equilibrium in case of double commodity.
3 Explain consumer's equilibrium in case of Indifferent Curve analysis.
4 How does the income of a buyer affect the demand of a commodity ?
5 How does the change of price of related goods affect the demand of a commodity?
6 Distinguish between Change in demand and change in qty demanded.
7 Explain the factors affecting Elasticity of demand.
8 Explain What to produce, how to produce and whom to produce
9 Explain the two characteristics of PPC
10 Explain the reasons of shifts of PPC
11   Explain the functions of statistics
12 Explain the importance of Statistics in Economics and business
13   Explain the limitations of Statistics
14 Distinguish between Economic activities and non economic activities.
15 Prepare the Project file

Fine Arts

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HOLIDAY HOME WORK
CLASS-XI
2018-19
SUBJECT - COMPUTER SCIENCE (083)

1. Read Chapter-1,2 Computer Overview and Software Concepts thoroughly.

2. Program to illustrate the use of modulus operator.

3. Program to calculate the area & perimeter of Rectangle and Area and Circumference of Circle.

4. Program to convert days into years and weeks. This program takes in the number of days as screen input from the user. It then converts the days into years as well as weeks.

5. What is the name of the function that should be present in all c++ program?

6. What is a header file?

7. How '/' operator is different from '%' operator?

8. What will be the sizes of following constants: ' a', "a", "Seema's", '\' ?

9. Identify the errors in the following program :
    ```
    void main()
    { int x
    char endl;
    x=3;
    cin>>endl;
    cout<<x<<3 }
    ```

10. What will be the output of the following code :
    ```
    (i) cout<<" #\n**\n###\n****\n ";
    (ii) char a= '@';
    cout<< a;
    cout<<'a';
    ```

11. What will be the output of following code:
    ```
    void main()
    { int j=5, k;
    k= a++ +a+ ++a;
    cout<<k; }
    ```

12. What would happen if the file iostream.h is not included in a program?

13. Write a C++ program two swap integers (take value from user)
   a) with using a third variable   b) without taking a temporary variable.

14. Write the values for a and b in one line, followed by value of c after two blank lines.

15. What will be the output of following code:

```
void main()
{ int j=5;
cout<<++j<<j++<<j; // in cascading processing starts from right to left
}
```

16. Explain the two different ways to give comments in C++.

17. Identify the errors in the following code segments:

```
   i. int main ( ) { cout <<"Enter two numbers";
            cin >> num >> auto;
            float area = Length * Breadth ; }
```

```
  ii. #include <iostream.h>
               void Main ( )
               { int a, b;
               cin << >>;
               if (a > b) MAX = a }
```

18. What will be output of the following code segment?

```
int a=5;
int b=7;
int c=4;
cout<<a<<b<<c;
cout<<"\n";
cout<<a<<"\n"<<b"\n"<<c;
```

19. Write the statements for each situation described below:-
   (i)   Assign the character P to the char variable c.
   (ii)   Increase the value of the variable e by 2.
   (iii)   To print out the string "Hill".
   (iv)   To print out the value of integer variable avg.
   (v)   To divide a by 5 and leave result in the variable b.
   (vi)   Read the value for a,b and c.

20. What is the output of following statements
   (i)   int i=20;
            cout<<i<<i++<<++I ;

(ii)   int i=1,a=3;
         i=a++;
         cout<<i;

(iii)   char ch='a' ;
         ch=(ch=='b')?ch:'b' ;
         cout<<ch;

(iv)   int a=5,b, c;
         b=a=15;
         c=a<15;
         cout<<"\na="<<a<<"\b="<<b<<"\nc="<<c;

21. Consider the following C++ program
    void abc()
    {
    cout<<"Enter two variables";
    cin>>a>>b;
    d=a/b
    e=d/0;
    cout>>d>>e;
    getch();
    }

22. For what purpose, the endl manipulators is used in C++ program.

23. What is the use of increment operator?

24. Write the output of the following code fragment:

    int a,b;
    a=5;
    b=++a;
    cout<<a<<++a;
    cout<<b<<b++;
    cout<<a<<b;

25. Write a C++ program to find the area of triangle using Heron's Formula.

26. Write a C++ program two swap to integers.

27. Write output of the following
    (i)   void main()
             {
             clrscr();

```
int n,s;
n=456;
s=(n%10)+(n/10);
cout<<"\n sum of digits="<<s;
getch();
}
```

(ii) void main()
```
    {
     p=a%b;
    c=c+a;
    a=a+8;
    b = p+a ;
    cout<<p<<a<<b<<c<<endl;
    }
```

(iii)   #include<iostream.h>
```
        void main()
         {
        float num ;
        num=4+ (float) 5 / (int) 2.0 ;
        cout<<num;
        }
```

28. State whether the following statements are true or false.
    a) A variable of type char can hold value 'A'.
    b) A short int and int variables may have equal sizes in C++.

29. Classify the following variable names of c++ into valid and invalid category.
    (i) 1no   (ii) num 1   (iii) num   (iv) num1num   (v) num+1   (vi) num.1

30. Convert type following
    (i) $(101.10)_{16} \rightarrow (?)_2 = (?)_{10}$

    (ii) $(2AC9)_{16} = (?)_2$

    (iii)$(101011001)_2 \rightarrow (?)_{16} = (?)_8$

    (iv) $(3674)_8 \rightarrow (?)_2 = (?)_{10}$

    (iv) $(FACE)_{16} \rightarrow (?)_2$

    (v) $(256)_8 \rightarrow (?)_{10}$

    (vi) $(3ABC)_{16} \rightarrow (?)_8$

    (vii) $(0.B47)_{16} = (?)_2$

Revise these test questions also

<u>ST TERESA SCHOOL</u>
<u>CLASS-XI COMPUTER SCIENCE (2018-19)</u>

TEST – INPUT/OUTPUT AND OPERATORS IN C++

---

1. What will be the value of z?
   int z,a,b,c;

   z=(a>b ?(a>c?3:4) : (b>c ?6:8));   int a=7, b=8, c=9   **1**

2. Evaluate the following expression   **2**
   A=b*c/2 + 3/2 *c+2+d;

3. Write the statement to   **2**
   a) Divide the variable A by 5 and leave the result in the variable B.
   b) Read the values a, b and c.

4. Write a program to take two values from user and swap these.   **2**

5. Write a program to generate the following using single cout.   **2**
   Program   20
   Logic   21
   Flow Chart   18

6. Write a program to take Principle, Interest and Time from User and display Simple Interest and Amount on Screen in a formatted way.   **3**

7. Any year is input through the keyboard. Write a program to determine whether the year is a leap year or not.
                                                                                        3

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   int z,a,b,c;

   z=(a>b ?(a>c?3:4) : (b>c ?6:8));   int a=7, b=8, c=9   **1**

2. Evaluate the following expression   **2**
   A=b*c/2 + 3/2 *c+2+d;

3. Write the statement to   **2**
   c) Divide the variable A by 5 and leave the result in the variable B.
   d) Read the values a, b and c.

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   Program   20
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1) What kind of elements are these   **1**
   a) "Dhruv"   **b)** 69.87

2) Name the header file to be included for the use of following built in functions.   **1**
```
void main()
{
char String[20];
cout<<"\n Enter a String....";
cin>>String;
getch();
}
```

3) Write corresponding C++ expression for the following mathematical expression:-   **2**
   a) $z= x^2 + y^3$ b) $z=a/a+b-d^2$

4) Write C++ expression for the following   **2**
   a) Increase the value of variable n by 5
   b) Assign the value 3 to variable C1,C2 and C3.

5) Construct logical expressions to represent the following conditions   **2**
   a) Weight is greater than or equal to 115 but less than 125
   b) Donation is in the range of 4000-5000 or guest is 1.

6) Write a program in C++ to take perimeter and length of Rectangle from User. Find the area and Breadth
of Rectangle.   **3**

7) Find the output of the following program: **2*2=4**
   a) cin>>code;
```
switch(code)
{
    case 'A' : cout<<"Accounts";
    case 'S' : cout<<"Sales"
            break;
    case 'P' : cout<<"Purchase";
             break;
    default : cout<<"Wrong Choice";
}
```
   i) code=P   **ii)** code=A

   b) int i=20;
      cout<<i<<i++<<++i;

ST TERESA SCHOOL

CLASS-XI (2018-19)

COMPUTER SCIENCE (083)

TEST – DATA REPRESENTATION AND FLOW OF CONTROL

---

1) Identify the error(s)   **1**

```
void Main()
{
        int A ; b=0;
        A+=b;
        cout<<A<<b ;
}
```

2) Write a program to display table of 7 on screen in dodging way.   **2**

3) Write a program to display following on screen   **3**

```
        C
        D  D
        E  E  F
        F  F  F  F
```

4) Find the Output   2***2=4**

    a) int i =10;

    for(; i<=10 ; i++)

    cout<<i<<endl;

    cout<<i ;

    b) C=10;
```
    do
    {
        cout<<C<<endl;
        C++;
    } while(C<10);
```

5) Do the conversion as directed :   **2*5=10**

    a) $(4238.25)_{10}$ to Binary

    b) $(706)_8$ to Hexadecimal

    c) $(EA54)_{16}$ to decimal

    d) $(120)_{16}$ to Octal

    e) 10101100111011_2 to Octal

---

1) Write following using switch case **2**

if (n==10)

result=5;

else

if (n==20)

result=10;

else

result=0;

2) Write a program to take two values from user and print the numbers in between them.　　**2**

3) Write a program to take a value from user and if number is even, print its cube otherwise print its square.**3**

4) Convert $(101010)_2 = (?)_{16} = (?)_{10}$ **2**

5) Write Output **2**

int x=2, y=2, z;

z= x+ ++y;

cout<<"Value of z is:"<<++z<<endl;

cout<<"Value of z is:"<<++z<<endl;

6) Write corresponding C++ expression **2**

a)　$z=x^2 + y^2$　　　　　　b)7-4(a+b)

7) Evaluate the following expression **2**

A =10*4/2 +4-2/2 +4-3+5/8

8) Display numbers from 1 to 10 using do-while loop. **2**

9) Take a number from user and display its table using while loop. **3**

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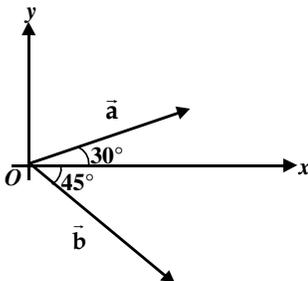# Indirapuram, GZB

Physics XI – Vectors   Assignment # 3

Questions

1) Which of the following are scalar and which are vector quantities?
Time, weight, speed, acceleration, temperature, power, kinetic energy, volume, displacement.

2) State and explain triangle law of vector addition.

3) State and explain parallelogram law of vector addition.

4) Walking is an example of rectangular resolution of vector in a plane. Explain.

5) At what angle the two forces (P+Q) and (P-Q) act so that the resultant is $(3P^2+Q^2)^{1/2}$

6) Calculate the magnitude of the vector, $\vec{r} = (3\hat{i} + 4\hat{j} + 7\hat{k})$ meter.

7) The magnitude of maximum resultant of two vectors is n times magnitude of their least resultant. If θ is the angle between the vectors and magnitude of their resultant be half the sum of the magnitude of the vectors, then show that $\cos θ = -(n^2 + 2)/2(n^2 – 1)$

8) Find the magnitude and direction of the resultant of following forces impressed on a particle: (i) 3√2 kg wt due north-east (ii) 6√2 kg wt due south-east (iii) √2 kg wt due north-west **[√68 kg wt, tan⁻¹(0.6) with south-east]**

9) One of the rectangular components of velocity of 80 km/h is 40 km/h. Find the other component. **[69.3 km/h]**

10) An aero plane takes off at an angle of 30º to the horizontal. If the component of its velocity along the horizontal is 250 km/h, what is the actual velocity? Also find the vertical component of the velocity. **[288.7 km/h, 144.4 km/h]**

11) Find the magnitude of resultant of two forces (3i + 4j) and (3j + 4k) [√74 units]

12) Find the components of the vectors as shown in the figure, if a = 2 units and b = 3 units.

13)   If $\vec{a} = 2\hat{i} + \hat{j}$ and $\vec{b} = 4\hat{i} + 7\hat{j}$

   (a) *Find the components of* $\vec{c} = \vec{a} + \vec{b}$ *along co-ordinate axis*

   (b) *Find the magnitude of* $\vec{c}$ *and its angle with the x-axis.*

14) *If* $\vec{a} = 2\hat{i} + 3\hat{j}$; $\vec{b} = 4\hat{i} + 2\hat{j}$

   (a) *Find* $c = \vec{a}.\vec{b}$

   (b) *Find* $\vec{d} = \vec{a} \times \vec{b}$

Holiday Home Work- Physics XI

➡ Thoroughly revise the topics: Physical World & Measurements (Dimensional and error Analysis), Motion in a straight line, Vector Algebra.

➡ Solve & prepare Assignment 1, 2 & 3

➡ Learn dimensional formulae (NCERT page # 214 to 218)