CLASS XII

ENGLISH

1. Read The Invisible Man

2. Read books from the Reading List and watch the Recommended Films.

READING LIST CLASS 12

Daughters	Bharati Ray
Roots	Alex Haley
Shadow Lines	Amitav Ghosh
The Hungry Tide	Amitav Ghosh
Maximum City	Suketu Mehta
Shantaram	Gregory David Roberts
The City of Djinns	William Dalrymple
City Improbable	Khushwant Singh
Dancing in Cambodia	Amitabh Ghosh
The Kite Runner	Khaled Housseini
No Full Stops in India	Mark Tully
India in Slow Motion	Mark Tully
The Global Soul	Pico Iyer
Namesake	Jhumpa Lahiri
The World Is Flat	Thomas Friedman
No Full Stops In India	Mark Tully
India In Slow Motion	Mark Tully
Dreams of My Father	Barack Obama
Selective Memory	Shobha De

One Amazing Thing	Chitra Diwakaruni Banerjee
The Palace of Illusions	Chitra Diwakaruni Banerjee
A Brief History of Time	Stephen Hawking
A Fine Balance	Rohinton Mistry
Chasing Harry Winston	Lauren Weisberger
Sea of Poppies	Amitav Ghosh
The Pricey Thakur Girls	Anuja Chauhan

RECOMMENDED FILMS:

1. Monalisa Smile
2. Chicago
3. An Education
4. Woman in Gold
5. The Changeling
6. Amelia
7. Million Dollar Baby
8. The Walk
9. A Good Year
10. A Beautiful Mind
11. Sully
12. Breakfast at Tiffany
13. Hallow man
14. The Invisible Man
15. Blind Side

BIOLOGY

MOLECULAR BASIS OF INHERITENCE

1. Differentiate between male and female heterogamety.
2. Explain the mechanism of sex determination in birds.
3. Why did Morgan select Drosophila to study sex-linked genes for his lab experimnets?
4. The F2 progeny of a monohybrid cross showed phenotypic and genotypic ratios as 1:2:1,unlike that of Mendel's monohybrid ratio. With the help of a suitable example , work out a cross and explain how is it possible.
5. Name the kind of diseases or diorders that are likely to occur in humans, if
   i) Mutation in the gene that codes for an enzyme , phenylalanine hydrolase occurs.
   ii) There is an extra copy of chromosome 21.
   iii) The karyotype is XXY.

iv) Mention any one symptom of the disease named above.

6. Explain the genetic basis of blood grouping in human population.
7. Why are thalassemia and haemophilia categorized as Mendelian disorders?
8. How would the phenotypes of monohybrid F1 and F2 progeny showing incomplete dominance in snapdragon and codominance in human blood group be different from Mendelian monohybrid F1 and F2 progeny? Explain.
9. What are "true breeding lines" that are used to study inheritance pattern traits in plants?
10. Why do normal red blood cells become sickle shaped in a person suffering from sickle cell anaemia?
11. Linkage and crossing over of genes are alternatives of each other. Justify with the help of an example.
12. A colourblind child is born to a normal couple. Work out a cross to show how it is possible.

NOTE: PERFORM CASE STUDIES FOR THE INVESTIGATIVE PROJECT

ECONOMICS

- Research on the approved topic.
- Practice all the graphs done in the class.
- Learn the topics covered so far.
- Law of supply- Self Study.

HOLIDAY HOME WORK
CLASS XII-A (COMPUTER SCIENCE)

1. Define class CABS with following specifications:
Datamembers
CNo – to store CabNo
Type – to store a character Á','B',or 'Ç' as City type
Pkm – to store per kilo meter charges
Dist – to store distance travelled (in km)
Member functions
A constructor function to initialize type as 'A'andCno as '1111'
A function charges() to assign pkm as per the following table:

Type	Pkm
A	25
B	20
C	15

A function Register( ) to allow administrator to enter the values for Cno and type. Also , this function should call charges( ) to assign pkm charges.
A function showcab( ) to allow user to enter the value of distance and display cno, type pkm , pkm * distance (as amount) on screen.

2.Answer the questions (i) and (ii) after going through the following class:

```
class Exam
 {
int Marks;  char Subject[20];
public:
Exam()
{     ……  }                          //Function 1
Exam(char S[])
{……}  //Function 2
Exam(int M)
        {…….}                          //Function 3
Exam(char S[], int M)              //Function 4
  {…….}
```

I. Which statements in C++ that would execute Function 3 and Function 4 of class Exam.
II. Which feature of Object Oriented Programming is demonstrated using Function1, Function 2, Function 3 and Function 4 in the above class Exam?
III. Give definition statements for function1,function2, function3 and function 4.
IV. Define copy constructor also for the above class.

3.Answer the questions (i) to (iv) based on the following codes

```
Class Drug
{
        char  category[10];
      char dt_of
_manufacture[10];
        char Company[20];
          Public:
          Drug();
          Void
enterdrugdetails ( );
          Void showdrugdetails
( );
}
```

```
class Tablet : public drug
{
protected:
          char
tablet_name[30];
          char volume_label[20];
public:
          float Price;
          Tablet();
Void enter tab_details( );
```

```
Void showtab_details( );
};
class PainReliever:public tablet
{
          intdosage_units;
          char
side_effects[20];
          intuse_within_days;
public:
          PainReliever( );
          void enterdetails( );
          void showdetails( );
};
```

(i) How many bytes will be required by an object of class Drug and an object of class PainReliever respectively?
(ii) Write names of all the data members which are accessible from the object ofclassPainReliever.
(iii) Write names of all the members accessible from member functions of class Tablet.
(iv) Write names of all member functions which are accessible from objects of classPainReliever.

4.

```
class CUSTOMER
{
intCust_no;
    char Cust_Name[20];
protected:
    void Register();
public:
    CUSTOMER();
     void Status();
}
```

```
class SALESMAN
{
intSalesman_no;
    char Salesman_Name[20];
protected:
     float Salary;
public:
      SALESMAN();
void Enter();
void Show();   }
```

```
class SHOP : private CUSTOMER , public SALESMAN
{
      char Voucher_No[10];
      char Sales_Date[8];
public:
 SHOP();
       void Sales_Entry();
        void Sales_Detail(); }
```

(i) Write the names of data members which are accessible from objects belonging to class CUSTOMER.
(ii) Write the member functions that are accessible from objects belonging to class SALESMAN.
(iii) Write the names of all the members which are accessible from member functions of class SHOP.
(iv) How many bytes will be required by an object belonging to class SHOP?

5.Write a function in C++ to count the number of vowels present in a text file.

6.Write a function in C++ to count the number of words in a text file NOTES.TXT.

7.Write a function in C++ to count the number of lines present in a text file

"STORY.TXT".

8.Write a function in C++ to read & display the details of all the members whose membership type is 'L' or 'M' from a binary file "CLUB.DAT". Assume the binary file contains object of class CLUB.

```
class CLUB
{
intmno;   char mname[20];   char type;
public:
void register ( );  void dis();
charwhattype( )
{ return type;}
};
```

9.Write a function in C++ to read and display the detail of all the users whose status is 'A' (i.e. Active) from a binary file "USER.DAT". Assuming the binary file "USER.DAT" is containing objects of class USER, which is defined as follows :

```
class USER
  {
intUid; //User Id
charUname [20]; //User Name
char Status; // User Type : A Active I Inactive
   public:
void Register(); //Function to enter the content
void show(); //Function to display all data members
charGetstatus () {return Status;}.
};
```