

SUMMER VACATION HOME WORK 2018-19

Class – XII ENGLISH

1. Read any English Newspaper of your choice daily and practice minimum five note making of any topic after pasting the text on the register.
2. Collect five classified advertisements each of the following type and paste them in the register.
 - i. Property/To Let/For sale
 - ii. Situation vacant/Wanted
 - iii. Vehicles for sale
 - iv. Hobby classes
 - v. Matrimonial
3. Collect any ten posters giving a social message or information about an event.
4. Paste invitation cards of a wedding and a formal function.
5. Revised the lessons and poems taught in the class.
6. Enjoy the novel The Invisible Man prescribed for extensive reading after watching the movie on line. Write chapter wise summary.

PHYSICAL EDUCATION-XII

Practical file

Practical-1 - Modified AAHPER administration for all items.

Practical-2 - Skill of any one team game of choice from given list*

(Athletics, Basketball, Football, Handball, Hockey, kho kho, and Volleyball).

Practical-3 – Conduct Barrow 3 item test on 10 students.

Practical-4- Senior citizen fitness test for 5 elderly family members.

Practical-5- Procedure for asana, benefits and contraindication for any two asanas each lifestyle disease.

Practice questions-

Q 1. Our school is going to organize football school national tournament. How will you manage the entire things for the successful conduction of the tournament?

Q2. Discuss about the various types of tournaments with their advantages and disadvantages in detail.

Q3. Draw the fixture of 16 teams on knock-out basis.

Q4. Draw the fixture of 19 teams on knock-out with the special seeding of 4 teams.

Q5. Draw the fixture of 18 teams on knock-cum-league basis.

Q6. Draw the fixture of 7 teams on league basis.

Q7. Draw the fixture of 10 teams on league basis.

Q8. Draw the fixture of 6 teams on double league basis.

Q9. What do you mean by intramural and extramural? Mention the significance of intramural and extramural.

Q10. What do you mean by specific sports programmes? Explain about health runs and run for unity in detail.

Q11. What do mean by planning? Elucidate the objectives of planning in sports in detail.

Q12. Discuss about knock-out cum league and league cum knock-out methods.

Q13. What do you understand by term SEEDING? Explain the methods of distributing seeding.

Q14. Discuss about various types of consolation tournaments in detail.

Q15. Discuss about the process of creating or making leaders through physical education.

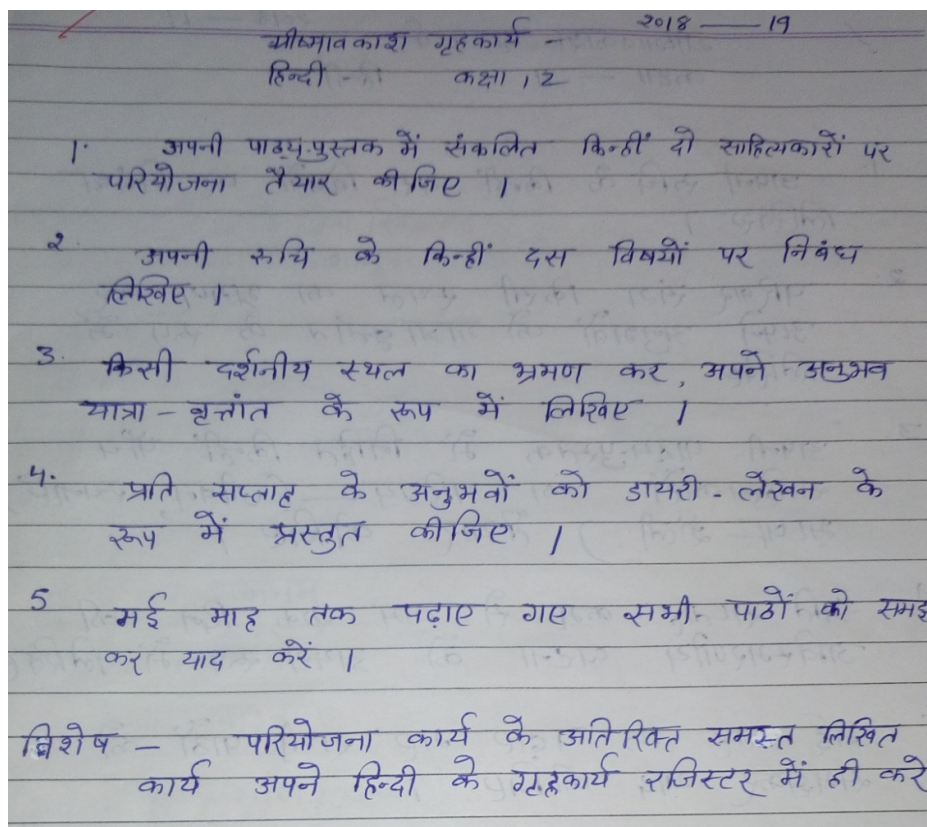
Q16. Explain in detail about diabetes.

Q17. Discuss in detail about the challenging tournaments.

Q18. What do you understand by consolation tournament? Draw the consolation fixture type-II for 15 teams.

Q19. What do you mean by food supplement? Describe the precautions for taking food supplements.

Q20. Discuss the benefits of asanas for prevention of diseases in brief.



CLASS XII BIOLOGY

1. Learn all the chapters studied in class.
2. Complete the record file.
3. Read the investigatory project & prepare for viva voce.
4. Write down the answers to HOTS & previous year board questions provided to you.

Class XII Chemistry

Q1. Solve the following assignments in your assignment register:

- i. Unit 2 - Solutions
- ii. Unit 3 - Electrochemistry
- iii. Unit 4 - Chemical Kinetics

Q2. Search for the topic of investigatory project and complete the theoretical part of the project.

CLASS XII SUB: PHYSICS

One investigatory project is to be performed from the following list of suggested projects or from any topic related to senior school physics.

1. To study the quality of detergents by capillary rise method.
2. To study the effect of temperature on surface tension of liquids.
3. To study the factors affecting the rate of loss of heat of a liquid.
4. To study the breaking stress of different materials of varying diameter.
5. To study the Inter conversion of potential and kinetic energy.
6. To determine the specific heat capacity of liquids.
7. To study the factors affecting the range and height of a projectile.
8. To study the factors affecting the coefficient of friction between 2 surfaces.
9. To study the factors affecting the time period of a simple pendulum.
10. To determine Faraday's constant.
11. To determine electrochemical equivalent of a material.
12. To study the validity of ohm's law for different types of material.
13. To study various factors on which the internal resistance /emf of a cell depends.
14. To study variations, in current flowing in a circuit containing a LDR , because of variation.
 - a. In the power of the incandescent lamp used to 'illuminate' the LDR.
(keeping all the lamps at a fixed distance)
 - b. In the distance of an incandescent lamp, (of fixed power), used to 'illuminate' the LDR.
15. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens, (made from a glass of known refractive index) and an adjustable object needle.
16. To design an appropriate logic gate combination for a given truth table.

17. To investigate the relation between the ratio of
 - a. Output and input voltage.
 - b. Number of turns in the secondary coil of a self designed transformer.
18. To investigate the dependence, of the angle of deviation, the angle of incidence, using a hollow prism filled, one by one, with different transparent fluids.
19. To estimate the charge induced on each one of the 2 identical styro foam (or pith) balls suspended in a vertical plane by making use of columb's law.
20. To set up a common base transistor circuit and to study its input and output characteristics and to calculate its current gain.
21. To study the factor, on which the self inductance of a coil depends, by observing the effect of this coil, when put in series with a resistor/ (bulb) in a circuit fed up by an a.c. source of adjustable frequency.
22. To construct a switch using a transistor and to draw the graph b/w the input and output voltage and mark the cut off, saturation and active regions.
23. To study the earth's magnetic field using a tangent galvanometer.

XII

Computer Science

Q.1 (a) Name the header files that shall be needed for the following code:-

```
void main( )  
{  
char string[20];  
gets(string);  
strcat(string,"CBSE");  
puts(string);  
}
```

(b) Name the header file to which the following function belong:

strcpy(),toupper(),random(),isalnum(),abs(), isupper(), strcmp(), fabs()
puts(),clrscr(),getchar(),exp()

c) define inline functions,private and public members of a class.

Q.2 Rewrite the following program after removing all the syntax error(s),if any.

Underline each correction.

(a) #include<iostream.h>

void main()

{

First=10,second=20;

Jumpto(first;second)

Jumpto(second);

}

Void jumpto(int N1,int N2=20)

{

N1=N1+N2;

Cout<<N1>>N2;

}

(b) #include [iostream.h]

class MEMBER

{

int Mno;float Fees;

PUBLIC:

void Register(){cin>>Mno>>Fees;}

void Display{cout<<Mno<<" : "<<Fees<<endl;}

};

void main()

{

```
MEMBER M;
```

```
Register();
```

```
M.Display();
```

```
}
```

Q.3 In the following program, if the value of n entered by the user is 5, what maximum and minimum values the program could possibly display?

```
#include <iostream.h>
```

```
#include <stdlib.h>
```

```
void main()
```

```
{
```

```
int a[ ]={10,20,30,40,50},n,b,c;
```

```
randomize();
```

```
cin>>n;
```

```
c=random(n);
```

```
b=a[c]+c;
```

```
cout<<b<<endl;
```

```
}
```

Q.4 Find the output of the following program:

```
#include <iostream.h>
```

```
void Secret(char Str[ ])
```

```
{
```

```
for (int L=0;Str[L]!='\0';L++);
```

```
for (int C=0;C<L/2;C++)
```

```
if (Str[C]=='A' || Str[C]=='E')
```

```
Str[C]='#';
```

```
else
```

```
{
```

```

char Temp=Str[C];
Str[C]=Str[L-C-1];
Str[L-C-1]=Temp;
}
}
void main()
{
char Message[ ]="ArabSagar";
Secret(Message);
cout<<Message<<endl;
}

```

Q.5 Define a class in C++ with following description:

Private Members

- A data member Flight number of type integer
- A data member Destination of type string
- A data member Distance of type float
- A data member Fuel of type float
- A member function CALFUEL() to calculate the value of Fuel as per the following criteria:

Distance	Fuel
<=1000	500
more than 1000 and <=2000	1100
more than 2000	2200

Public Members

- " A function FEEDINFO() to allow user to enter values for Flight Number, Destination, Distance & call function CALFUEL() to calculate the quantity of Fuel
- " A function SHOWINFO() to allow user to view the content of all the data members

(b) Define a class garments with the following description:

private members:

gcode string
gtype string
gsize integer
gfebric string
gprice float

a function assign() which calculates and assigns the value of gprice as follows:

for the value of gfebric “cotton”

gtype **gprice**

trouser 1300

shirt 1100

for gfebric other than “cotton” the above mentioned gprice gets reduced by 10%

public members:

*A function input() to input the values of the data members gcode, gtype, gsize and gfebric and invoke the assign() function.

*A function display() which display the contents of all the data members for a garment.

(c) Define a class Tour with the following description:

private members:

tcode string
NoofAdults integer
Noofkids integer
kilometer integer
totalfare float

public members:

*A function Assignfare() which calculates and assigns the values of the data member totalfare as follows:

for each adult

fare	for KM
500	>=1000
300	<1000 & >=500
200	<500

for each kid the above fare will be 50% of the fare mentioned in the above table.

for eg.

if KM is 850, No. of adults=2 and No. of kids=3

then total fare should be calculated as

no. of adults*300+no. of kids*150

i.e 1500

* A function `entertour()` to input the values of the data members `tcode`, `NoofAdults`, `Noofkids`, `kilometer` and invoke the `assignfare()` function.

* A function `showtour()` which display the contents of all data members.

Q.6 In the following program, if the value of n entered by the user is 5, what maximum and minimum values the program could possibly display?

```
#include <iostream.h>
#include <stdlib.h>
void main()
{
int a[]={ 10,20,30,40,50},n,b,c;
randomize();
cin>>n;
c=random(n);
b=a[c]+c;
cout<<b<<endl;
}
```

7(a)What do you understand by Data Encapsulatiopn and Data Hiding ?Also, give an example in C++ to illustrate both.

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

```
class WORK
{
int workid;
char worktype;
public:
~WORK()                //function 1
{cout<<"unallocated"<<endl;}
void status()          //function 2
{cout<<workid<<":"<<worktype<<endl;}
WORK()                //function 3
{workid=10;worktype='T';}
WORK(WORK &w)         //function 4
{
workid=w.workid+12;
worktype=w.worktype+1
}
};
```

which member function out of function 1, function2, function 3 and function 4 shown in the above definition of class WORK is called automatically, when the scope of an object gets over? Is it known as constructor or destructor or overloaded function or copy constructor?

(ii) WORK W;

WORK(W);

Which member function out of function 1, function2, function 3 and function4 shown in the above definition of class WORK will be called on execution of statement written as statement 2? What is this function specially known as out of destructor or copy constructor or default constructor?

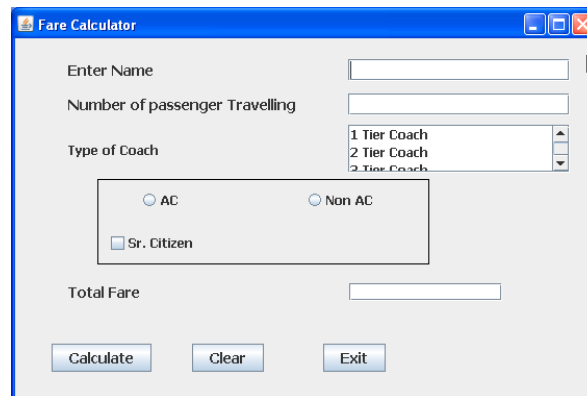
Note:-Revise all the chapters covered so far.

INFORMATICS PRACTICES

Class XII

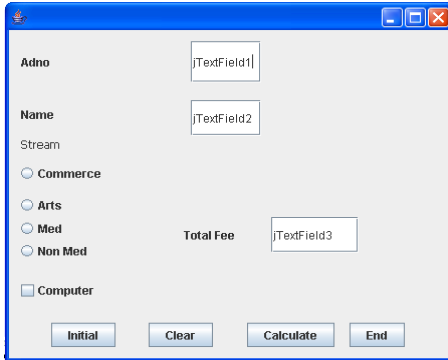
Q.1 Design GUI desktop applications for following:-

Q Mr. Krishnav is working with railways and he has to design an application which can calculate the total fare. The following is the Fare Calculator along with details: (Use only defaults name for the controls i.e. Swing Components)



- a. Write the code for exit button so that when a user clicks on exit button Application will be closed. Also display a message “Thank you for your nice visit” before exiting the application.
- b. Write a code to calculate the total fare according to the given conditions:
 - i) The type of coach is selected by the user from the JList1 and the charges are for 1 tier coach Rs. 2000 per person , 2 tier coach Rs 1500 per person and for 3 tier coach 1000 per person.
 - ii) If the person is travelling in AC coach then increase the fare by 20%.
 - iii) If the person is senior citizen the fare will be 50%.
 - iv) The total fare will be number of passenger travelling multiply by fare calculated per seat.
- c Write the property which is prerequisite for radio button.

Q Blue Valley Public School has computerised its registration for class XI students. Given below is the data entry form for same.



- i) On clicking the initial button the jTextField1 and jTextField2 editable property should be set to false.
- ii) On clicking the Calculate button the jTextField1 and jTextField2 editable property should be set to true.
The Total Fee is calculated on the basis of the following criteria:

Stream	Fee(Rs.)
Commerce	3500
Arts	3000
Medical	3900
Non Medical	3800

The Fee should be displayed in jTextField3

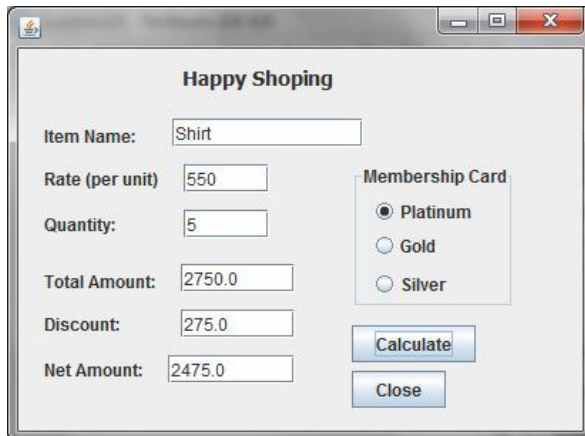
- iii) If the student has opted for Computers Rs. 500 will be added to the Total Fee. The Total Fee should be displayed in jTextField3.

- iv) On Clicking the End button the application will be closed.

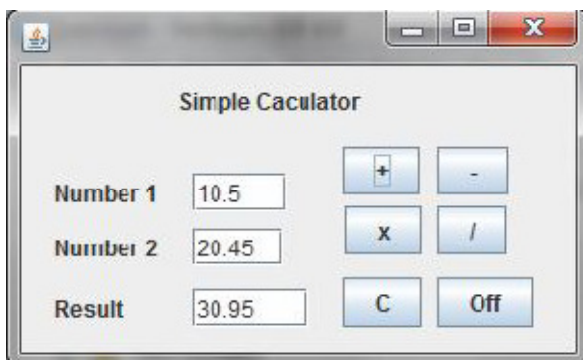
a) Develop a Billing application for Happy Shopping- A retail chain involved in sales of Readymade garments. The happy Shopping offers discount to its members

holding Platinum, Gold and Silver card.

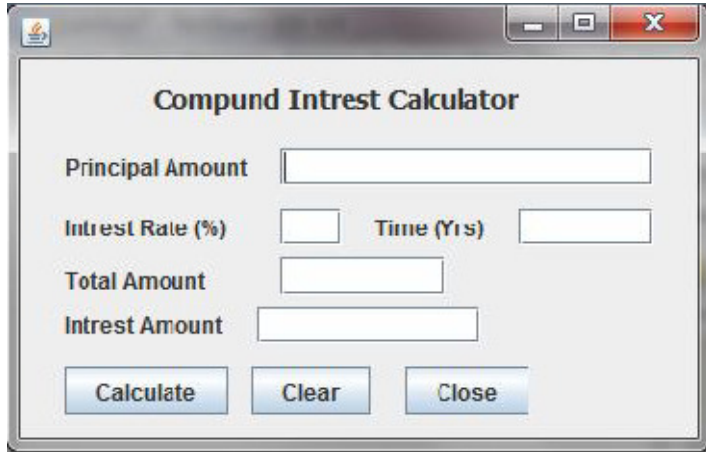
The 10% discount is given to Platinum card, 8% to Gold Card and 5% to Silver Card holders on sales amount.



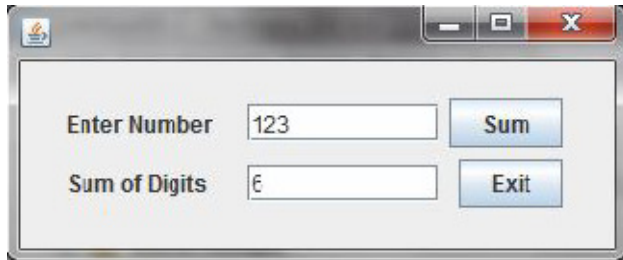
b) Develop a simple Calculator application as per given screen snapshot, to implement +, -, x and / operations. The text boxes get cleared when 'C' button is clicked.



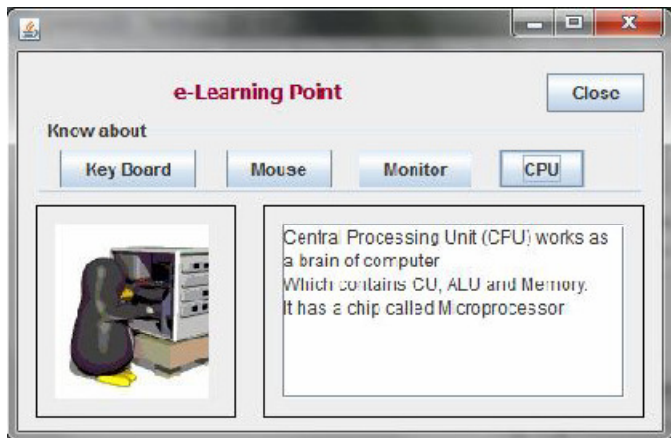
c) Develop a Compound Interest Calculator application as per given screen snapshot, to calculate total amount for given Amount, Rate of Interest and Time using $A=P(1+R/100)^T$ and Interest $I=A-P$.



d) Develop an application to compute the sum of digits for given number



e) Develop an e-Learning application with images and text information as per given screen shot.



f) A Quick Fox Transport Co. wants to develop an application for calculating

amount based on distance and weight of goods.

The charges (Amount) to be calculated as per rates given below.

Distance	Weight	Charges per Km.
----------	--------	-----------------

	≥ 100 kg.	Rs. 7/-
--	----------------	---------

≥ 500 Km	< 100 kg.	Rs. 6/-
---------------	-------------	---------

< 500 Km	≥ 100 Kg.	Rs.8/-
------------	----------------	--------

	< 100 Kg.	Rs.5/-
--	-------------	--------

The screenshot shows a Java Swing window titled "Quick Fox Transport Co." with a standard Windows-style title bar. The window contains a form with the following elements:

- From (City):** A text input field containing "Dellii".
- To (City):** A text input field containing "Mumbai".
- Weight (Kg):** A text input field containing "300".
- Distance (Km):** A text input field containing "1200".
- Amount:** A text input field containing "5000.0".
- Buttons:** A "Calculate" button is positioned to the right of the Distance field, and an "Exit" button is positioned to the right of the Amount field.

Q2 Read CH-8 MYSQL Revision Tour.

- A) Solve the crossword puzzle on pg.263
- B) Do the lab exercise and write the command neatly in your practical register (pg.266 to 269).

Q3 Read chapter-7 Web Applications

- A) Write HTML code for web pages given on pg.238.
- B) Give the output of HTML code given in Q3 pg.240.

Q 4 Develop a project using Programming and Database skills learnt during the course. The project should be an application in any one of the following domains, - e-Governance, e-Business and e-Learning with GUI front-end corresponding database at the back-end.

Project Work

Sample Project : Student Information System, Shopping Mall, Banking, Payroll, Digital Contact Diary, Hotel Reservation System, Airways Booking System, Railways System, etc...

Data Collection and analysis:

- Choose any system as your project for XII (a batch of two maximum)
- Collect data about the project(bills, reports, admission forms, etc.)
- Analyze the design screen and validations of forms (to clear, disable the components, check for negative values, check for blanks, etc.)

System Development (Coding)

- Design the First Screen – with related picture, title with an impressive font and an Enter button.
- Second Screen – as a Login Screen.
- Other Screens related to your project including ADD, DELETE, MODIFY and SEARCH.

Note : Submit the project in a CD .

Your Project should cover the following specifications:

- Project Title(name of the project, roll no, class)
- Acknowledgement
- Certificate
- Introduction to project
- Software and hardware required (including Operating system)
- Bibliography

Q5 Revise the syllabus covered for test.

(*NOTE:The soft copy as well as the hard copy of the work done is to be submitted)

BUSINESS STUDIES

CLASS XII

- **Develop a project on marketing management as per CBSE guidelines.**

Class 12

Subject - Political Science

Answer the following questions

Q1 Define cold war.

Q2 Why did superpowers have military alliances with smaller countries

Q3 What is Cuban missile crisis

Q4 How non alignment was a challenge to bipolarity

Q5 Assess India's role in non aligned movement

Q6 What were the arms control treaties signed between 1963 and 1993?

Q7 Define Shock Therapy

Q8 Write the causes and consequences of disintegration of Soviet Union

Q9 What are the constraints on American hegemony today? Which one of these do you expect to get more important in future?

Q10 Describe the process by which US hegemony can be established.

XII MATHEMATICS HOLIDAYS HOME WORK.

Q-1 Let the three digit numbers A28, 3B9, 62C where A,B and C are integers between 0 to 9, be divisible

by a fixed integer k, show that the determinant $\begin{vmatrix} A & 3 & 6 \\ 8 & 9 & c \\ 2 & B & 2 \end{vmatrix}$ is also divisible by same integer k.

Q-2 If $1/a, 1/b, 1/c$ are the pth, qth, rth terms of an A.P. prove that $\begin{vmatrix} bc & ca & ab \\ p & q & r \\ 1 & 1 & 1 \end{vmatrix} = 0$

Q-3 prove that $\begin{vmatrix} \sin\theta & \cos\theta & \sin 2\theta \\ \sin(\theta + \frac{2\pi}{3}) & \cos(\theta + \frac{2\pi}{3}) & \sin(2\theta + \frac{4\pi}{3}) \\ \sin(\theta - \frac{2\pi}{3}) & \cos(\theta - \frac{2\pi}{3}) & \sin(2\theta - \frac{4\pi}{3}) \end{vmatrix} = 0$

Q-4 If $s=a+b+c$ then prove that $\begin{vmatrix} s+c & a & b \\ c & s+a & b \\ c & a & s+b \end{vmatrix} = 2s^3$

Q -5 If $1, w, w^2$ are the cube roots of unity, then prove that $\begin{bmatrix} 1 & w^n & w^{2n} \\ w^n & w^{2n} & 1 \\ w^{2n} & 1 & w^n \end{bmatrix} = 0$

Q-6 If $a^2 + b^2 + c^2 = -2$, then prove that $\begin{vmatrix} (1+a^2)x & (1+b^2)x & (1+c^2)x \\ (1+a^2)x & (1+b^2)x & (1+c^2)x \\ (1+a^2)x & (1+b^2)x & (1+c^2)x \end{vmatrix} = (x-1)^2$

Q-7 Let $A = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 1 \\ 0 & -2 & 4 \end{bmatrix}$, $A^{-1} = \frac{1}{6}[A^2 + cA + dI]$, then find the values of c & d . Q-8 Prove that

$\begin{vmatrix} yz - x^2 & zx - y^2 & xy - z^2 \\ zx - y^2 & xy - z^2 & yz - x^2 \\ xy - z^2 & yz - x^2 & zx - y^2 \end{vmatrix}$ is divisible by $(x+y+z)$, and hence find the quotient. Q-9 Solve for x ,
 $\sin^{-1}(6\sqrt{3x}) + \sin^{-1}(6x) = \pi/2$

Q-10 Prove that $2\tan^{-1}\left\{\tan\frac{A}{2}\tan\left(\frac{\pi}{4} - \frac{B}{2}\right)\right\} = \tan^{-1}\frac{\sin A \cos B}{\sin A + \cos B}$

Q-11 Prove that $\tan^{-1}\frac{3 \sin 2A}{5+3 \cos 2A} + \tan^{-1}\frac{1}{4}\tan A = A$, where $-\frac{\pi}{2} < A < \pi/2$

Q-12 Solve for x $\sin^{-1}\frac{15}{x} + \sin^{-1}\frac{8}{x} = \pi/2$

Q-13 Write in simplest form x , $\cos^{-1}\left[\frac{3x+4\sqrt{1-x^2}}{5}\right] + \sin^{-1}\left[\frac{5x+12\sqrt{1-x^2}}{13}\right]$

Q-14 Solve for x , $\sin\{\cot^{-1}(x+1)\} = \cos[\tan^{-1}x]$

Q-15 solve for x , $\sin[2\cos^{-1}\cot(2\tan^{-1}x)] = 0$

Q-16 Prove that $2\tan^{-1}\left[\sqrt{\frac{a-b}{a+b}}\tan\frac{x}{2}\right] = \cos^{-1}\frac{a \cos x + b}{a + b \cos x}$

Q-17 If $\cos^{-1}x + \cos^{-1}y + \cos^{-1}z = \pi$ then prove that $x^2 + y^2 + z^2 = 1$

Q-18 If $f: \mathbb{R} \rightarrow (0, 2)$ $F(x) = \frac{e^x - e^{-x}}{e^x + e^{-x}} + 1$ is a bijective function then find $f^{-1}(1)$

Q-19 If $f: (-1, 1) \rightarrow (-1, 1)$, $F(x) = \sin\frac{\pi x}{2}$ show that f is invertible also find its inverse.

Q-20 If $f(x) = \sqrt{x}$, x is positive & $g(x) = x^2 - 1$, are two real functions. then find $f \circ g$ and $g \circ f$, also check that whether $f \circ g = g \circ f$.

Q-21 If $f: (-1, 1) \rightarrow (-1, 1)$, $f(x) = x|x|$, then show that f is bijective function.

Q-22 $f: \mathbb{R} \rightarrow \mathbb{R}$, be a function given by $f(x) = ax + b$, find the constant a & b such that $f \circ f$ is a identity mapping.

Q23 $f: \mathbb{R} \rightarrow \mathbb{R}$, be a function given by $f(x) = 2x - 3$ & $g: \mathbb{R} \rightarrow \mathbb{R}$, be a function given by $g(x) = x^3 + 5$, then find the value of $(f \circ g)^{-1}$

Q-24 $f: R \rightarrow R$, be a function given by $f(x)=2x$ & $g: R \rightarrow R$, be a function given by $g(x)=x + 2$, then verify that $(f \circ g)^{-1} = f^{-1} \circ g^{-1}$.

Q-25 Let R be a relation on $N \times N$ defined as $(a,b)R(c,d)$ iff $ad(b+c)=bc(a+d)$ for all $(a,b), (c,d) \in N \times N$. Show that R is an equivalence relation.

Q-26 let $A = \{1,2,3,\dots,9\}$ and R be the relation in $A \times A$ defined by $(a,b)R(c,d)$ if $a+d=b+c$ for $(a,b),(c,d)$ in $A \times A$. Prove that R is an equivalence relation. Also obtain the equivalence class $[(2,5)]$.

Q-27 consider the function $f: W \rightarrow W$, defined as $f(n) = \begin{cases} n-1, & \text{if } n \text{ is odd.} \\ n+1, & \text{if } n \text{ is even.} \end{cases}$, show that f is invertible. Also find its inverse.

Q-28 on the set $R - \{-1\}$ an operation $*$ is defined by $a*b = a+b+ab$. prove that $*$ is a binary operation, commutative and associative on $R - \{-1\}$ also find the identity of $*$ if exist. Also find the invertible elements.

Q-29 (i) $f: [0, \pi/2] \rightarrow R$ & $g: [0, \pi/2] \rightarrow R$ $f(x) = \sin x$, $g(y) = \cos y$, show that f & g are injective but $f+g$ is not injective.

(ii) Find the inverse of $f(x) = \frac{e^x - e^{-x}}{e^x + e^{-x}}$ also write the pre image of 5.

(iii) If a function $f: [2, \infty) \rightarrow B$ defined by $f(x) = x^2 - 4x + 2$ is bijective then find the value of B .

(iv) If the mappings f & g are given by $f = \{(1,2), (3,5), (4,1)\}$ & $g = \{(2,3), (5,1), (1,3)\}$ write $g \circ f$ & $f \circ g$.

Q-31 (a) if $\cos^{-1} x + \cos^{-1} y + \cos^{-1} z = \pi$ then prove that $x^2 + y^2 + z^2 + 2xyz = 1$ (b) $\tan^{-1} x + \tan^{-1} y + \tan^{-1} z = \frac{\pi}{2}$ & $x, y, z < 0$, then prove that $xy + yz + zx = 1$

Q-32 (I) Prove that $\tan \left[\frac{1}{2} \sin^{-1} \frac{3}{5} \right] = 1/3$ (ii) Prove that $\tan \left(\frac{1}{2} \sin^{-1} \frac{3}{4} \right) = \frac{4-\sqrt{7}}{3}$

Q-33 Find the max. and min. value of $(\sin^{-1} x)^2 + (\cos^{-1} x)^2$

Q-34 If $\tan^{-1} \left(\frac{1}{1+2} \right) + \tan^{-1} \left(\frac{1}{1+6} \right) + \dots \dots \dots \tan^{-1} \left(\frac{1}{1+n(n+1)} \right) = \tan^{-1} \theta$ then find the value of θ .

Q-35 To raise money for an orphanage, students of three schools A, B and C organized an exhibition in their locality, where they sold paper bags, scrap books and pastel sheets made by them using recycled paper, at the rate of Rs 20, Rs 15 & Rs 5 per unit respectively. School A sold 25 paper bags, 12 scrap books and 34 pastel sheets. School B sold 22 paper bags, 15 scrap books and 28 pastel sheets, while School C sold 26 paper bags, 18 scrap books and 36 pastel sheets. Using matrices, find the total amount raised by each school.

Q-36 If $A = \begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & 3 \\ 1 & -2 & 1 \end{bmatrix}$, $B = \begin{bmatrix} 7 & -3 & 2 \\ 3 & 0 & -3 \\ -1 & 3 & 1 \end{bmatrix}$ Find AB , Hence solve the system of Eqⁿs $x + y + z = 6$, $y + 3z = 11$, $x - 2y + z = 0$,

Q-37 If $A = \begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & 3 \\ 1 & -2 & 1 \end{bmatrix}$ find A^{-1} , hence solve the Eqⁿs

$$x + z = 4, \quad x + y - 2z = -3, \quad x + 3y + z = 10$$

Q -38 A school awarded prizes for discipline, honesty and regularity. The total prize amount for these three values is Rs 1000. If the prize amount of honesty and regularity is equal to the prize amount of discipline, also the prize amount of discipline is 100 more by the two times of regularity. Using matrix method find the prize of each value, also suggest two more values for prizes.

Q-39 If $\begin{vmatrix} p & b & c \\ a & q & c \\ a & b & r \end{vmatrix} = 0$, then find the value of $\frac{p}{p-a} + \frac{q}{q-b} + \frac{r}{r-c}$, $p \neq a, q \neq b, r \neq c$

Q-40 If $\begin{bmatrix} 2 & 3 \\ 3 & 4 \end{bmatrix} A \begin{bmatrix} -2 & 5 \\ 3 & -6 \end{bmatrix} = \begin{bmatrix} -2 & 6 \\ 3 & -5 \end{bmatrix}$, find Matrix A.

SUBJECT – ECONOMICS

CLASS – XII

Guidelines for Project Work in Economics (Class XII)

Students are supposed to pick any **ONE** of the two suggested projects.

I. Project (Option One) : What's Going Around Us

Scope of the project: Student may work upon the following lines:

Introduction

Details of the topic

Pros and Cons of the economic event/happening

Major criticism related to the topic (if any)

Students' own views/perception/ opinion and learning from the work

Any other valid idea as per the perceived notion of the student who is actually working and presenting the Project-Work.

Marking Scheme: Marks are suggested to be given as –

S. No.	Headin	Marks
1.	Relevance of the topic	3
2.	Knowledge Content/Research	6
3.	Presentation Technique	3
4.	Viva	8
	Tota	20 Marks

Suggestive List

1. Micro and small scale industries
2. Food supply channel in India
3. Contemporary employment situation in India
4. Disinvestment policy
5. Health expenditure (of any state)
6. Goods and Services Tax Act
7. Inclusive growth strategy
8. Human Development Index
9. Self help groups
10. Any other topic

II. Project (Option Two): Analyse any concept from the syllabus:

Following essentials are required to be fulfilled in the project.

Explanation of the concept:

- Meaning and Definition
- Application of the concept
- Diagrammatic Explanation (if any)
- Numerical Explanation related to the concept etc. (if any)

- Students' own views/perception/ opinion and learning from the topic..

Marking Scheme:

Marks are suggested to be given as –

S. No.	Headin	Marks
1.	Relevance of the topic	3
2.	Knowledge Content/Research Work	6
3.	Presentation Technique	3
4.	Viva	8
	Tota	20 Marks

Suggested List

Price Determination

Price Discrimination

Demand and its determinants

Supply and its

Production – Returns to a Factor

Cost function and Cost

Monopoly

Oligopoly

Monopolistic Competition

Credit Creation

Money Multiplier

Central Bank and its

Government Budget & its

Budget deficit

Exchange Rate Systems

Foreign Exchange Markets

Balance of payments

Any other topic

ACCOUNTANCY

Class XII

Q1. Why is the General Reserve distributed among old partners before a new partner is admitted?

(1)

Q2. Differentiate between Average profit and Super profit.

(1)

Q3. A and B share profits and losses in the ratio of 4 : 3. They admit C with $\frac{3}{7}$ th share, which he gets $\frac{2}{7}$ th from A and $\frac{1}{7}$ th from B. What is the new profit sharing ratio?

(1)

Q4. Give two circumstances under which the Fixed Capitals of partners may change. (1)

Q5. R, S and T entered into a partnership for manufacturing and distributing educational CDs on April 1, 2006. R looked after the business development, S content development and T financed the project. At the end of the year, S wanted 50% share in profit for the intellectual work he did. The other partners were not inclined to this. How would you resolve this on the basis of the provisions of Indian Partnership Act, 1932? (1)

Q6. The partnership deed provides that Alok, the partner, will get Rs.10,000 per month as salary. But, the remaining partners object to it. How will this matter be resolved? (1)

Q7. A and B are partners sharing profits in the ratio of 3 : 2. A surrenders $\frac{1}{6}$ th of his share and B surrenders $\frac{1}{4}$ th of his share in favour of C, a new partner. What is the new ratio and the sacrificing ratio? (1)

Q8. A, B and C are partners sharing in the ratio of 3 : 2 : 1. They admit D for $\frac{1}{6}$ th share. B would retain his original share. Calculate new profit sharing ratio. (1)

Q9. X and Y are partners in a firm sharing profits and losses in the ratio of 4 : 3. On April 1, 2009, they admitted Z as a new partner. Z brought in Rs.80,000 for his capital and Rs.21,000 for $\frac{1}{3}$ rd share of goodwill premium. On Z's admission, goodwill appeared in books at Rs.28,000. Record necessary journal entries on Z's admission. (3)

Q10. A, B and C are partners in a firm. Though there is no provision in the partnership deed for interest on capital, this has been provided in the accounts @ 10% p.a. for two years ended on 31st December, 2009. Their Fixed capitals on which interest was calculated were throughout – A Rs.15,000; B Rs.12,000 and C Rs.9,000. Their profit sharing ratio is 2 : 2 : 1. Pass necessary journal entry. (3)

Q11. Ajit and Baljit were sharing profits in the ratio of 3 : 2. They decided to admit Pratap into the partnership for $\frac{1}{6}$ th share of the future profits. Goodwill, valued at four times the super profits of the firm, was Rs.18,000. The firm had assets worth Rs.15 Lakhs and Liabilities Rs.12 Lakhs. The normal earning capacity of such firms is expected to be 10% p.a. Find the average profits earned by the firm during the last four years. (3)

Q12. Prepare partners Capital Accounts for the year ended March 31, 2010:-

- (i) Initial Capital introduced on 1st April,2008: A –Rs. 30,000; B – Rs. 15,000 and C Rs.20,000.
- (ii) Total Drawings during the year : A – Rs.3,000; B – Rs.1,500; and C – Rs. 2,000.
- (iii) A and B claim a fixed salary of Rs.5,000 p.a. and Rs.6,000 p.a. Respectively(agreed by all partners).
- (iv) C is allowed to claim commission @ 5% on gross sales which are Rs.2,20,000.
- (v) Share of profit: A – Rs. 4,000; B – Rs.2,000; and C – Rs.2,000. (3)

Q13. Hari, Ravi and Kavi were partners in a firm sharing profits in the ratio of 3 : 2 : 1. They admitted Gargi as a new partner for 1/7th share in the profits. The new profit sharing ratio will be 2 : 2 : 2 : 1 respectively. Gargi brought Rs.3,00,000 for her capital and Rs.45,000 for her 1/7th share of goodwill. Pass necessary journal entries in the books of the firm. (3)

Q14. A firm earns profits of Rs.1,00,000. The Normal rate of return in a similar type of business is 10%. The value of total assets (excluding Goodwill) and total liabilities as on the date of valuation of goodwill are Rs.12,00,000 and Rs.3,80,000 respectively. Calculate the value of goodwill according to capitalization of super profit method. (3)

Q15. X, Y and Z are in partnership sharing profits and losses in the ratio of 5 : 4 : 1. Two new partners R and S join the firm. The profits are now to be shared in the ratio of 3 : 4 : 2 : 2 : 1 respectively. R is to pay Rs.30,000 for his share of goodwill and S has insufficient cash to pay for goodwill. Both new partners introduced Rs.1,00,000 each as their capital. You are required to pass necessary journal entries. (4)

Q16. Ashok and Rajesh are partners sharing profits in the ratio of 7 : 3. Their capitals on 1st January,2008 were Rs.80,000 and Rs.60,000 respectively. They admitted Vijay into partnership on that date giving him a 1/5th share in the future profits, which he acquired equally from Ashok and Rajesh. Vijay is to bring in Rs.50,000 as his share of capital. Find new profit sharing ratio and record necessary journal entries. (4)

Q17. X, Y and Z are partners in a firm sharing profits and losses in the ratio of 5 : 3 : 2. Their fixed capitals were Rs.3,00,000, Rs.2,00,000 and rs.1,00,000 respectively. For the year 2008-09 interest on capital was credited to them @ 10% p.a. instead of 8%. Pass necessary adjustment entry. (4)

Q18. P,Q and R are partners in a firm. Their capital accounts stood at Rs.30,000, Rs.15,000 and Rs.15,000 respectively on 1st January, 2009. As per the provisions of the deed:-

- (i) R was to be allowed a remuneration of Rs.3,000 p.a.;
- (ii) Interest @ 5 % p.a. was to be provided on capital;

(iii) Profits were to be divided in 2 : 2 : 1.

Ignoring the above terms, net profit of Rs.18,000 for the year ended December 31, 2009 was divided among the three partners equally.

Pass an adjustment entry. (4)

Q19. X and Y started a partnership business on 1st April, 2009. They contributed Rs.80,000 and Rs.60,000 respectively as their capitals. The terms of the partnership agreement are as follows:

- (i) 20% of profits (before any appropriations) is to be transferred to General Reserve.
- (ii) Interest on capital @ 12% p.a. and interest on drawings @ 10% p.a.
- (iii) X and Y to get a monthly salary of Rs.2,000 and Rs.3,000 respectively.
- (iv) X is entitled to a commission of Rs.7,000.
- (v) Profits and losses are to be shared in capital ratio.

Profit for the year ended 31st March,2010, before making above appropriations was Rs.1,25,375. The drawings of X and Y were Rs.40,000 and Rs.50,000 respectively.

Prepare Profit and loss Appropriation A/c. (4)

Q20. Usha and Asha are in partnership in the ratio 3 : 2. Neelam is admitted into partnership giving her 1/5th share in profits. Neelam is to bring in Rs.30,000 as her capital and her share of goodwill in cash subject to the following terms:-

- (i) Goodwill of the firm is valued at Rs.50,000.
- (ii) Stock is to be reduced by Rs.3,000 and Provision for Bad Debts is to be reduced by Rs.2,400.
- (iii) There was a claim against the firm for damages amounting to Rs.2,000. The claim has now been accepted.

Pass necessary journal entries. (4)