PROJECT WORK – 2024–25
CLASS – X

PROJECT WORK (SUBMISSION DATE: 1ˢᵗ July 2024)

ENGLISH LANGUAGE

Length 500 words

Question 1) Peer pressure is a huge dilemma among the teenagers these days, it has become an issue that requires some regards. Comment.

Or

Question 2) What is your life like, give a sneak peak of your surroundings, would you like to change anything about it? Why?

Speaking skill – 5

Listening skill – 5

ENGLISH LITERATURE

Length 1000-1500 words

Question 1) Henry Longfellow's iconic poem 'Haunted Houses' is a connection between the spirit world and the world of living, write an anecdote from your life that mainly focuses on the lost of a loved one.

Or

Question 2) Referring closely to the drama, discuss the role of Julius Caesar in the Roman culture.

INSTRUCTIONS TO THE CANDIDATES:

1) The Projects are for CISCE Board.
2) Handwriting should be neat and clear.
3) Make these Projects separately; one for language and one for literature.
4) Write relevant matter and make it very creative.
5) Relevant pictures and quotations must be there. Pictures only on the non-ruled sheet and write on the ruled side.
6) Proper heading should be written in BOLD.
7) Significant lines, phrases and dialogues should be highlighted.
8) Do not use red and green ink.
9) Cover the projects neatly with relevant details on the cover-page itself.

HINDI

प्रश्न सं. 1) पुरूष प्रधान समाज में नारी का संघर्ष, घर– परिवार की सीमाओं से बाहर नई चुनौतियाँ; विविध क्षेत्रों में नारी योगदान दे रही हैं। नारी और नौकरी; दोहरी भूमिका कितनी संभव है, कितनी जरूरी। (शब्द सीमा 300–400 शब्द)

प्रश्न सं. 2) कहानी 'काकी' का कथानक लिखते हुए कहानी का उद्देश्य स्पष्ट कीजिए। लेखक का साहित्यिक परिचय देते हुए श्यामू और विश्वेश्वर का चरित्र चित्रण कीजिए।

प्रश्न सं. 3)

A ListeningSkills (AURAL) Listening to a conversation/Talk/Reading of a passage writing down the relevant points and answering the given questions.

प्रश्न सं. 4)

B Speaking skills (Oral)

(The topic-provided by the subject teacher)

HISTORY / CIVICS

Question 1) Present a life sketch and contributions of any one of the following Presidents of India-

Dr. S. Radhakrishnan

Dr. A.P.J. Abdul Kalam

OR

Compare the Parliamentary and Presidential Forms of Government with reference to India and the U.S.A.

GEOGRAPHY

Question 1)   Prepare a project:-
"Need for Industrialization in India, the latest trends and its impact on economy of India"

←——————————→

PHYSICS

[SEQUENCE-: Name, Contents, Acknowledgement, Introduction of Project Work- Topic is to be mentioned**, Objectives of Project Work, Detailed Matter, Conclusion, Bibliography]**

Topic 1:
Give the detailed description of simple machine, Lever and its classification, Pulley and combination of pulleys.

Topic 2:
Explain in detail oersted's Experiment demonstrating the magnetic effect of electric current, magnetic field due to electric current in a circular coil, DC motor and transformer.

WORKING MODEL

Show the variation of current and potential difference in series and parallel combinations of bulbs (atleast three bulbs).

←——————————→

CHEMISTRY

Question 1)
(i)   Variation of conductance with temperature in electrolytes
(ii)   Study of constituents of an alloy.

Question 2)   To study Green chemistry- Bio diesel and bio petrol also study extraction process of bio desial.

Note: *Pictures are required on every pages as per given topic.*
Working model:
Make any one working model from the following:
(i)   Electroplating Machine.
(ii)   Electrolysis of Water (Preparation of hydrogen and oxygen gas)

←——————————→

BIOLOGY

Topic 1
Endocrine system in human body, major endocrine glands their location, hormones secreted and important functions of hormones. A brief idea of feedback mechanism.

Topic 2
Population explosion in India, Causes, need for adopting control measures. Methods of population control.

Topic 3
Prepare a Working Model on **any one** of the following topics-
(i)   Photosynthesis (Working model)
(ii)   Working model of heart
(iii)   Urinary System (Working model)

←——————————→

MATHEMATICS

Topic 1)   Comparative newspaper coverage of different items.

Topic 2)   Survey of various types of Bank accounts, rates of interest offered.

←——————————→

ECONOMICS

[SEQUENCE-: Name, Contents, Acknowledgement, Introduction of Project Work- *Topic is to be mentioned***, Objectives of Project Work, Detailed Matter, Conclusion, Bibliography.]**
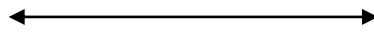
TOPIC-I

Write a detailed report on the meaning and objectives of Goods and Services Tax (GST).

Visit a nearby store. Select five items of regular consumption. Study the following: the impact of GST on these five products; how this has impacted the demand for these products; how it has benefitted the producer, consumer and the government.

Students must submit following documents: -

(i)   Your photograph in the store while conducting the survey (maintain social distancing) should be pasted inside the file (Date and time must be mentioned on it) and one passport size photograph in school uniform should be pasted on the cover page of the file,

(ii)   A file with the detailed report as per the sequence given above. Write your findings with a conclusion.

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COMMERCIAL STUDIES

[SEQUENCE-: Name, Contents, Acknowledgement, Introduction of Project Work- *All the topics are to be mentioned***, Objectives of Project Work, Detailed Matter, Conclusion, Bibliography.]**

TOPIC-I

Write a detailed report on the meaning of E-commerce, benefits of E-commerce over traditional methods of transactions, E-tailing, E-advertising, E-marketing and E-security (meaning only). ERP and its modules (brief concept).

Make a PowerPoint Presentation on it and copy the same in the "Smart Class" for Class-X.

TOPIC-II

Study consumer awareness amongst households through designing a 'Questionnaire' and collection of primary data with a file covering the following captions: -

(1)   Consumer Movement: A Global History.
(2)   Features of Consumer Protection Act, 2019
(3)   Rights of a Consumer.
(4)   Meaning of Consumer Exploitation.
(5)   Types of Consumers' Exploitation.
(6)   Importance of Consumer Awareness.
(7)   Questionnaire [for at least 10 Customers with their passport size photograph, signature, address & Mobile No. and your photograph with the customers (maintain social distancing) in the locality should be pasted inside your file (Date and time must be mentioned on it.)]
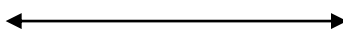(8)   Write your findings with Conclusion.

TOPIC-III

Write a detailed report on the meaning of Internet Banking, Modes of transferring money / Net Banking: NEFT, RTGS, IMPS, mobile wallets: meaning only.

ATM, Credit & Debit cards- meaning & difference, caution to be taken while using these cards. Write your findings with a conclusion.

(Paste one passport size photograph in school uniform on the cover page of the file.)

$\longleftrightarrow$

COMPUTER APPLICATIONS

Question 1)   ABC Transport Company charges for parcels as per the following tariff

Weight	Charges
Up to 10 kg	Rs 30 per Kg
For the next 20 Kg	Rs 20 per Kg
Above 30 Kg	Rs 15 per kg

Write a program in java to calculate the charge for a parcel, taking the weight of the parcel as an input.

Question 2)   Employees at Analyze consulting earn the basic hourly wage of Rs 500.In addition to this, they also receive a commission on the sales they generate while tending the counter. The commission given to them is calculated according to the following table.

Total Sales	Commission Rates
Rs 100 to less than Rs 1000	1%
Rs 1000 to less than Rs 10000	2%
Rs 10000 to less than Rs 25000	3%
Rs 25000 and above	3.5%

Write a program in Java that inputs the number of hours worked and the total sales. Compute the wages of the employees.

Question 3)   A cloth manufacturing company offers discounts to the dealers and retailers. This discount is completed using the total length of the cloth as per the following table.

Length of Cloth	Dealer's Discount	Retailer's Discount
Up to 1000 meters	20%	15%
Above 1000 meters but less than 2000 meters	25%	20%
More than 2000 meters	35%	25%

Write a program in java to input the length of the cloth and the total amount of purchase. The program should display a menu to accept type of customer-Dealer(D) or Reatailer (R) and print the amount to be paid .display a suitable error message for a wrong choice.

Question 4)   Write a menu driven program to display the following menu:
Conversion Table
i)   Milliseconds to Seconds
ii)   Milliseconds to Minutes
iii)   Seconds to Milliseconds
iv)   Seconds to Minutes
v)   Minutes to Milliseconds
vi)   Minutes to Seconds
For an incorrect choice, display an appropriate error message.

Question 5)   The city Library charges late fine from members if the books were not returned on time as per the following table.

Number of days Late	Magazines fine per day	Text books fine per day
Up to 5 days	Rs 1	Rs 2
6 to 10 days	Rs 2	Rs 3
11 to 15 days	Rs 3	Rs 4
16 to 20 days	Rs 5	Rs 6
More than 20 days	Rs 6	Rs 7

Using the switch statement write a program in java to input name of person, number of days late and type of book-'M' for Magazine and 'T' for text book. Compute the total fine and display it along with the name of the person.

Question 6) Write a program to accept a number and check and display whether it is a Spy no or not. (A number is called a Spy number of the sum of its digits equals the product of the digits)

Example: Consider the number 1124

Sum of the digits = 1 + 1 + 2 + 4 = 8

Product of the digit = 1×1×2×4 = 8

Question 7) Write a program to accept a number and check Whether it is a Corona Number or Not. (A number is called corona number if all the digits of the number are odd)

Example: 1357

Question 8) Write a menu driven program to find the sum of the following series:

(i) $x^1 + x^2 + x^3 + x^4 …………… + x^n$

(ii) $x^1 - x^2 + x^3 - x^4 ………….. - x^n$

(iii) $\dfrac{1}{x^1} + \dfrac{2}{x^2} + \dfrac{3}{x^3} + ... + \dfrac{n}{x^n}$

(iv) $\dfrac{1}{\sqrt{1}} + \dfrac{2}{\sqrt{2}} + \dfrac{3}{\sqrt{3}} + ... + \dfrac{10}{\sqrt{10}}$

(v) $\dfrac{x}{2!} + \dfrac{x}{3!} + \dfrac{x}{4!} + ... \dfrac{x}{20!}$

Question 9) Write a program to print the sum of negative numbers, Sum of positive even numbers and sun of positive odd numbers from a lot of n number entered by the user. The program terminates when the user enters a Zero.

Question 10) Write a program to read the number n and print the Tribonacci Series and Fibonacci series.

Tribonacci Series: 0, 0, 1, 1, 2, 4, 7, 13, 24, 44, 81…… n

Fibonacci Series: 0, 1, 1, 2, 3, 5, 8, 13, 21…… n

Question 11) Write a program in Java to display the following patterns.

```
(i)     1   *   *   *   *      (ii)   1   *   *   *   *      (iii)   #
        2   2   *   *   *             *   2   *   *   *              *   *
        3   3   3   *   *             *   *   3   *   *              #   #   #
        4   4   4   4   *             *   *   *   4   *              *   *   *   *
        5   5   5   5   5             *   *   *   *   5              #   #   #   #


(iv)    1                     (v)    *   *   *   *   *     (vi)   1   2   3   4   5
        2   3                        *   *   *   *               1   2   3   4
        4   5   6                    *   *   *                   1   2   3
        7   8   9   10               *   *                       1   2
        11  12  13  14  15           *                           1
                                                                 1   2
                                                                 1   2   3
                                                                 1   2   3   4
                                                                 1   2   3   4   5
```

Question 12) Write a program to determine of an entered number is a Happy Number. A happy number is defined by the following process.

Starting with squares of its digits and repeat the process until the number is equal to 1. For example 19 is 1 happy number as per the following calculation

$1^2 + 9^2 = 82$

$8^2 + 2^2 = 68$

$6^2 + 8^2 = 100$

$1^2 + 0^2 + 0^2 = 1$

Question 13) Write a program to input integer elements into an array of size 20 and perform the following operations:

(i)   Display largest number from the array

(ii)   Display smallest number from the array

(iii)   Display sum of all the elements of the array

Question 14)   Write a program to input 10 integer elements in an array and sort them in descending order using selection sort technique.

Question 15)   Write a program to accept the year of graduation from school as an integer value from the user. Using the Binary Search technique on the sorted array of integers given below, output the message "Record exists" if the value input is located in the array. It not output the message "Record does not exist".

Question 16)   Write a program to input a two – dimensional array of size n (rows = column = n) and perform the following tasks:
(i)   Print the array in matrix form (n×n)
(ii)   Compute and print the sum of the elements at the left diagonal
(iii)   Compute and print the sum of the elements at the right diagonal.

Example: n = 4

1	7	9	6
2	11	13	5
8	4	2	1
7	5	20	10

Sum of left Diagonal = 24   Sum of Right Diagonal = 30

Question 17)   Write a program in Java to define a method. Pass any character and check whether a character is vowel or consonant.

Question 18)   Write a program in Java to define a method and pass any number to that method, check whether that number is a Prime number or not.
A Prime Number is a number which is divisible by 1 or itself.

Question 19)   Design a class to overload a method volume ( ) as follows:
double Volume (double r) – with radius 'r' as an argument, returns the volume of sphere using the formula
$$v = \frac{4}{3} \times \frac{22}{7} r^3$$
double volume (double n, double r) – with height 'h' and radius 'r' as the arguments, returns the volume of a cylinder using the formula
$$v = \frac{22}{7} \times r^2 \times n$$
double volume (double l, double b, double h) – with length 'l', breadth 'b' and height 'h' as the arguments, returns the volume of a cuboid using the formula
        v = l × b × h

Question 20)   Design a class to overloud a function Sum Series ( ) as follows:
(i)   void SumSeries (int n, double x) – with one integer argument and one double argument to find and display the sum of the series given below:
$$s = \frac{x}{1} - \frac{x}{2} + \frac{x}{3} - \frac{x}{4} + \frac{x}{5} - \ldots\ldots\ldots\ldots\text{n terms}$$
(ii)   void SumSeries ( ) – To find and display the sum of the following series:
$$S = 1 + (1 \times 2) + (1 \times 2 \times 3) + \ldots\ldots + (1 \times 2 \times 3 \times 4 \ldots\ldots \times 20)$$

Question 21)   Create a class named Pizza that stores detail about a pizza. It should contain the following:
Instance Variable
String pizza size: to store the size of the pizza (Small, medium or large)
int cheese – the number of cheese toppings
int pepperoni – the number of pepperoni toppings
int mushroom – the number of mushroom toppings
Member Methods:
Constructor – to initialize all the instance variables
Calculate_Cost ( ) – A public method that returns a double value, that is, the cost of the pizza.
Pizza cost is calculated as follows:
Small : Rs 500 + Rs 25 per topping
Medium : Rs 650 + Rs 25 per topping
Large : Rs 800 + Rs 25 per topping
Pizza_Description ( ): A public method that returns a String containing the pizza size, quality of each topping and the pizza cost as calculated by Calculate Cost ( ).

Question 22) Write a program in Java to accept a string and display the number of Uppercase, number of lowercase, number of special characters and number of digits present in the string.
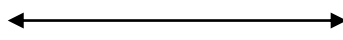
Question 23) Write a program to enter a string / sentence and display the longest word and the length of the longest word present in the String.
Input: "Tata Football academy will play against Mohan Bagan"
Output: The largest Word = Football
                The length of the word = 8

Question 24) Using the Switch Statement, Write a menu driven program for the following:
(i)   I   (ii)   I   C   S   E
        I   C   I   C   S
        I   C   S   I   C
        I   C   S   E   I

Question 25) Write a program to input 20 words in an array. Arrange these words in descending order of alphabets using. Bubble sort technique. Print the sorted array.
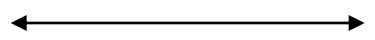
Guidelines:
(i)   Students have to work on the project regularly throughout the year according to the instruction of the teachers.
(ii)   Do variable description after each program.
(iii)   Use comments in the program wherever it is required.
(IV)   Mention the output of each program also.

PHYSICAL EDUCATION

Project: Prepare a Project file on any two games given in your syllabus under following headings with diagrams regarding them–
i)   Knowledge of the Game (History)
ii)   Rules of the Game
iii)   Fundamental skills
iv)   Terminologies
v)   National and International Governing Bodies
vi)   National and International Tournaments

S.U.P.W

1. File work:
Write on the following topics:
(a) Gardening
(b) Meal Planning
(c) Tailoring and Embroidery

2. Community Service:
Awareness drive on 'Growing medical plants'.
Students are required to bring different plants like Neem, Tulsi, Aloe Vera, Bael etc. And plant them in the given area.

3. Projects:
(a) Students are required to make a centre table cloth (40 inch x 60 inch) using different methods of hand embroidery or block printing.
(b) Students are required to prepare decorative flower pot using Plaster of Paris with hand-made flowers in it.