

- Language:**
- 1) Solve the test papers of Total English (6-12) Question – 3 & 4
 - 2) Write a composition on the topic "Women power is declining day by day".
Write for or against the topic –
 - 3) Silence.
 - 4) Write a report on the rising incidents of people dying in road accidents.
 5. Write a report based on a travel brochure to plan a visit to Leh, Ladakh (Enclosure)

- Literature:**
- Q1. Write a detailed Summary of Act III.
- Q2. 'Home is where we gather grace'. Comment on the statement with reference to poem Enterprise.
- Q3. Discuss the attitude of the residents of the building towards Boori Ma before and after the installation of a basin in the stairwell.

- Maths:**
- 1) Write meaning with examples of following terms – Relations, Functions, Types of functions, Binary operations, Inverse trigo-function, Continuity and differentiability.
- 2) Solve the following questions. (Questions will be dictated in the class)

Environmental Sc. Project Work

- Topic**
1. Green Revolution
 2. Pollution
 3. Conventional and alternate sources of energy
 4. Initiatives to protect your local environment against env. Degradation.
 5. Soil Pollution
 6. Soil Conservation
 7. Water Conservation
 8. Org. Farming
 9. Waste Generation & its management
 10. Water Pollution

Physics: Numerical on Ohm's Law and Current electricity.

- Chemistry:**
1. Occurrence and Principle of extraction of Al, Cu, Zn, Fe and Ag.
 2. Manufacture of HNO_3 , H_2SO_4 , KMnO_4 , $\text{K}_2\text{Cr}_2\text{O}_7$, O_3 and their properties.
 3. Preparation of PH_3 , SO_2 and their properties.
 4. Extraction of S by Frasch process.

5. Project work.

CLASS-12

LANGUAGE:

1. Solve the test papers from Total English (6 to 12) Question-3&4.

2. Write a composition in not more than 400=550 words on the topic

(i) The position of women is decreasing day by day. Write for or against the topic.

(ii) Desiccation

3. a - Write a travel brochure to plan a visit to Leh, Ladakh.

Outline : Leh , Ladakh – the land fits culture – location – major tourist attractions – best time to visit – accommodation – connectivity.

b- Write a statement of Purpose (SOP) for admission into a reputed

college for

studying medicine, Parsed your SOP on the following points:

Personality traits – interest – reason for choosing to study medicine – reason

for

your being selected by the given institute – role of the institute in achieving

your

goals and aspiration.

(You may also include other relevant details)

Home Science:

Prepare a project on –

1. Market survey of packaged goods such as food stuffs (Biscuits, jams, chips, cheese spread) hair dyes, shampoos soaps etc, to investigate whether consumer protection norms of labelling are being followed.

PROJECT FOR ECONOMICS CLASS-12 (ANY TWO)

1. Make a comparative study of the Allocation of financial Resources of the Central Government Budget on Agriculture, Defence, Industry and Education in the last 10 year.
2. Prepare a trend Analysis of Growth And Productivity of Any one Industry, such as – Textile/Automobiles/ Electronic and Telecommunication in India for the past 10 year.
3. Make a comparative analysis of lending performance of five commercial banks in the past 6 years with Reference to the changing C&R and SLR.

Compare the Contribution made by different sectors of the Economy towards GDP Growth during the planning period.

SUMMER VACATION HOMEWORK 2017

CLASS: XII

SUBJECT: COMPUTER SCIENCE

Q1. A company manufactures packing cartons in four sizes, i.e. cartons to accommodate 6 boxes, 12 boxes, 24 boxes and 48 boxes. Design a program to accept the number of boxes to be packed (N) by the user (maximum up to 1000 boxes) and display the break-up of the cartons used in descending order of capacity (i.e. preference should be given to the highest capacity available, and if boxes left are less than 6, an extra carton of capacity 6 should be used.)

Example:

INPUT: N = 140

OUTPUT:

48 X 2 = 96

24 x 1 = 24

12 x 1 = 12

6 x 1 = 6

Remaining boxes 2 x 1 = 2

Total number of boxes = 140

Total number of cartons = 6

Example 2:

INPUT: N = 4296

OUTPUT: INVALID LENGTH

Q2. Write a program to declare a square matrix A [] [] of order (M x M) where 'M' must be greater than 3 and less than 10. Allow the user to input positive integers into this matrix. Perform the following tasks on the matrix:

(a) Sort the boundary elements in descending order using any standard sorting technique and rearrange them in the matrix.

(b) Calculate the sum of the boundary elements.

(c) Display the original matrix, rearranged matrix and sum of the boundary elements.

Example:

INPUT: M = 4

9 2 1 5

8 13 8 4

15 6 3 11

7 12 23 8

OUTPUT:

ORIGINAL MATRIX

9 2 1 5

8 13 8 4

15 6 3 11

7 12 23 8

REARRANGED MATRIX

23 15 12 11

1 13 8 9

2 6 3 8

4 5 7 8

The sum of boundary elements is = 105

Q3. Write a Program in Java to input a number and check whether it is an **Evil Number** or not.

Evil Number: An Evil number is a positive whole number which has even number of 1's in its binary equivalent.

Example: Binary equivalent of 9 is 1001, which contains even number of 1's.

A few evil numbers are 3, 5, 6, 9....

Design a program to accept a positive whole number and find the binary equivalent of the number and count the Number of 1's in it and display whether it is an Evil number or not with an appropriate message.

Q4. Write a Program in Java to input a number and check whether it is a **Phonic number** or **Heteromecic Number** or not.

Phonic Number : A phonic number, oblong number, rectangular number or heteromecic number, is a number which is the product of two consecutive integers, that is, $n(n + 1)$.

The first few phonic numbers are:

0, 2, 6, 12, 20, 30, 42, 56, 72, 90, 110, 132, 156, 182, 210, 240, 272, 306, 342, 380, 420, 462 ... etc.

Q5. Write a Program in Java to input a 2-D array of size 'm*n' and print its boundary (border) elements.

For example:

INPUT				
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

OUTPUT				
1				5
6				10
11				15
16	17	18	19	20

Q6. A **Smith number** is a composite number, the sum of whose digits is the sum of the digits of its prime factors obtained as a result of prime factorization (excluding 1). The first few such numbers are 4, 22, 27, 58, 85, 94, 121 etc.

Example:

(i) 666

Prime factors are 2, 3, 3, and 37

Sum of the digits are $(6+6+6) = 18$

Sum of the digits of the factors $(2+3+3+ (3+7)) = 18$

(ii) 4937775

Prime factors are 3, 5, 5, 65837

Sum of the digits are $(4+9+3+7+7+7+5) = 42$

Sum of the digits of the factors $(3+5+5+ (6+5+8+3+7)) = 42$

Write a program to input a number and display whether the number is a **Smith number** or not.

Q7. Write a Program in Java to input a number in Decimal number system and convert it into its equivalent number in the Hexadecimal number system.

Note: Hexadecimal Number system is a number system which can represent a number in any other number system in terms of digits ranging from 0 to 9 and then A – F only. This number system consists of only sixteen basic digits i.e. 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E and F. Here 10 is represented as A, 11 as B and so on till 15 which is represented as F.

For Example: 47 in the Decimal number system can be represented as 2F in the Hexadecimal number system.

Q8. A prime palindrome integer is a positive integer (without leading zeros) which is prime as well as a palindrome.

Given two positive integers m and n, where m & n. Write a program to determine how many prime-palindrome integers are there in the range between m and n (both inclusive) and output them.

The input contains two positive integers m and n where $m < 3000$ and $n < 3000$. Display the number of prime palindrome integers in the specified range along with their values in the format specified below:

INPUT:

m=100

n=1000

OUTPUT: The prime palindrome integers are:

101,131,151,181,191,313,351,373,383,727,757,787,797,919,929

Frequency of prime palindrome integers: 15

