

ROSE BUD SCHOOL, LILUAH, HOWRAH

SUBJECTS	PROJECT TOPICS FOR CLASS - 11_2023-2024
ENGLISH LANGUAGE	Topic: An Autobiographical experience. [Within 500 words]
ENGLISH LITERATURE	Topic: What is the role of the weird sisters in Macbeth? [Within 1000-1500 words]
HINDI	Topic-1 "Sati" Kahani ke Rachanakar ka bistrut parichay dete hue, kahani k udesay Samjhakar likhiye tatha nimnlikhit patro ka charitra chitran kgy---- 1.madalsha 2.lekhika 3.panjabi mahila 4.Maharastriyan mahila Words limit 1000 to 1500 words
BENGALI	Write a summary of the story "Thakurda" from the text book "Probondho O Godyo Sankalonin". Approximately 1000 - 1500 words.
MATHEMATICS	Topic- Using Venn diagram, verify the distributive law for three given non-empty sets A, B and C.
PHYSICS	<ul style="list-style-type: none"> • Measurement of the diameter of a wire using micro meter screw gauge, and to find the error in its cross section. • To determine acceleration due to gravity by measuring time period(T) and length(l) of a pendulum.
CHEMISTRY	Topic - Ancient Indian medicines and medicinal plants Format of the project ----- <ul style="list-style-type: none"> • Introduction/purpose • Contents • Analysis/Material aid(graph, data, structure, pie chart,histogram, diagram etc.) • Presentation • Bibliography
BIOLOGY	Topic Name : Diabetes Format of the Project: → Content → Introduction → Presentation (graphs, tables, charts, newspaper ,Cuttings, diagrams statistical analysis if relevant) . → Conclusion/ Summary → Bibliography

POLITICAL SCIENCE	1. Right to Freedom and role of Media.
HISTORY	Any one :- 1.Change in British policy after 1857. 2.Industrialisation - Impact of the growth of industries on the life style of the people.
SOCIOLOGY	1. Children and beggary
ACCOUNTS	Preparation of Journal/Subdivision of Journal, Ledger, Trial balance and Financial statements of trading organisation on the basis of a case study <ul style="list-style-type: none"> • Develop a case study of a sole trader starting business with a certain amount of capital. He could have got the amount from his past savings or by borrowing from a bank by mortgaging his personal assets or by winning a lottery or any other source • Write in detail his transactions during the year --his purchases (cash and credit expenses), purchase of fixed assets and depreciation charged on them, any outstanding expenses, prepaid expenses, accrued income, drawing, bill of exchange, accepting bills payable, etc • From this case study develop (which should have at least 15 transactions) pass the journal entries, post them into the Ledger, prepare a Trial Balance and the Trading and Profit and Loss Account and Balance sheet. • The various expenses for company purposes, could be depicted in the form of bar diagrams in pie-charts (FINAL TERM) Prepare a Bank Reconciliation Statement and Amended Cash Book from the information given in your cash book and bank statement (passbook) with at least 15 transactions
BST	Topic : Study the importance of changes in the business environment.Examine any two companies that had first mover advantage in Indian business environment and how they reacted to entry of global competition.
COMMERCE	Topic 1: Identify two public private partnership projects Find out: _the equity participation of both the partners. _objectives of the partnership. _Strengths both partners bring into the venture.
EONOMICS	Topic: Study in detail the South Asian Association for Regional Cooperation (SAARC) and its impact on Indian Economy.
COMPUTER SCIENCE	1. A triangle is said to be an 'Equable Triangle', if the area of the triangle is equal to its perimeter. Write a program to enter three sides of a triangle. Check and print whether the triangle is equable or not. For example, a right angled triangle with sides 5, 12 and 13 has its area and perimeter both equal to 30.

COMPUTER
SCIENCE

2. A prime number is said to be 'Twisted Prime', if the new number obtained after reversing the digits is also a prime number. Write a program to accept a number and check whether the number is 'Twisted Prime' or not.

Sample Input: 167

Sample Output: 761

167 is a 'Twisted Prime'.

3. Write a program to input a number and check whether it is 'Magic Number' or not. Display the message accordingly.

A number is said to be a magic number if the eventual sum of digits of the number is one.

Sample Input : 55

Then, $5 + 5 = 10$, $1 + 0 = 1$

Sample Output: Hence, 55 is a Magic Number.

Similarly, 289 is a Magic Number.

4. Write a program to accept a list of 20 integers. Sort the first 10 numbers in ascending order and next the 10 numbers in descending order by using 'Bubble Sort' technique. Finally, print the complete list of integers.

5. Write a program to input a sentence. Create a new sentence by replacing each consonant with the previous letter. If the previous letter is a vowel then replace it with the next letter (i.e., if the letter is B then replace it with C as the previous letter of B is A). Other characters must remain the same. Display the new sentence.

Sample Input : ICC WORLD CUP

Sample Output: IBB VOQKC BUQ

6. Write a program using a method called area() to compute area of the following:

(a) Area of circle = $(22/7) * r * r$

(b) Area of square = side * side

(c) Area of rectangle = length * breadth

Display the menu to display the area as per the user's choice.

7. Write the programs to display the following patterns as per users' choice

a) 1 2 3 4 5 b) 1 2 3 4 5

6 7 8 9 2 2 3 4 5

10 11 12 3 3 3 4 5

13 14 4 4 4 4 5

15 5 5 5 5 5

8. If arrays M and M + N are as shown below, write a program in Java to find the array N.

M = {{-1, 0, 2}, M + N = {{-6, 9, 4},

 {-3, -1, 6}, {4, 5, 0},

 {4, 3, -1}} {1, -2, -3}}

9. A bank announces new rates for Term Deposit Schemes for their customers and Senior Citizens as given below:

Term	Rate of Interest (General)	Rate of Interest (Senior Citizen)
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Up to 1 year	7.5%	8.0%
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Up to 2 years	8.5%	9.0%
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Up to 3 years	9.5%	10.0%
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More than 3 years	10.0%	11.0%
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The 'senior citizen' rates are applicable to the customers whose age is 60 years or more.

Write a program to accept the sum (p) in term deposit scheme, age of the customer and the term. The program displays the information in the following format:

Amount Deposited	Term	Age	Interest earned	Amount Paid
xxx	xxx	xxx	xxx	xxx

COMPUTER
SCIENCE

10. A disarium number is a number in which the sum of the digits to the power of their respective position is equal to the number itself. [10]

Example: $135 = 1^1 + 3^2 + 5^3$

Hence, 135 is a disarium number.

Design a class Disarium to check if a given number is a disarium number or not. Some of the members of the class are given below:

Class name: Disarium

Data members/instance variables:

int num: stores the number