BCM SCHOOL, BASANT AVENUE, DUGRI ROAD, LUDHIANA

HOLIDAYS HOMEWORK

CLASS: XI SCIENCE

SESSION: 2023-24

Dear Students, hope all of you are safe and fit at your homes. 'Summer Vacation' is a leisure time for you to improve your academic knowledge as well as personality. The Holidays Homework designed for you aims at fulfilling both the motives. The homework must be done in a very neat and presentable manner.

NOTE:

WORK IS TO BE SUBMITTED BETWEEN JULY 13, 2023 TO JULY 17, 2023.

KINDLY ENSURE TIMELY SUBMISSION.

CHEMISTRY: PROJECT

Write following practicals in your chemistry practical file

- Titration NaOH vs HCl
- Titration Na2CO3 vs Oxalic Acid
- Tests of N, S & Halogens in Organic compounds
- Preparation of crystals of CuSO4

1. ART INTEGRATED PROJECT

   • Make Power Point Presentation any of the following topics –

   *Agriculture and Chemistry
   *Medicine and Chemistry
   *Industries and Chemistry
   *Cosmetics and Chemistry Note- Submit Softcopy of PPT of it at chemistryresponses2021@gmail.com

2. Prepare a speech of 5 minutes on Development of chemistry and Indian contribution in it.After vacations activity would be there to observe the same.
3. Solve the assignment shared in Class work note book

BIOLOGY: PROJECT

ART INTEGRATED PROJECT WORK ON: Conservation of Mangrove Ecosystem.

Students can prepare V-LOG, POSTER, INFOGRAPHICS on the given topic. It must include

- Significance of Mangroves
- Mangrove threats and solutions
- Ways to protect Mangroves
- Economic and ecological linkages.

ENGLISH: ASSIGNMENT

I. Short Question-Answers (40-50 words)

1. "January 2 was crucial for the voyagers." How?
2. 'That was a turning point in our friendship'. What was the turning point?
3. How does the poet invoke the image of hollowness and emptiness in poem The Laburnum Top?
4. How did the narrator's horse ride prove to be a disaster for him?
5. What 'circumstance' leaves the speaker in Shirley Toulson's poem 'silent'? Why?
6. The narrator's 'grandmother could never have been pretty, but she was always beautiful'. Explain.
7. How did the induction of Larry Vigil and Herb Seigler prove to be a boon for Gordon Cook and his family?

8. The thought was almost revolting. What was the thought and why was it disgusting?
9. Was Mourad a 'thief' in your opinion? Give reason in support of your answer.
10. She accepted her seclusion with resignation. Explain.
11. Why do you think goldfinch flies away into the infinite after feeding her young ones
12. What message did Sue's card contain?
13. At her age one could never tell. What was it one could never tell?
14. Why did the Captain think most of all on reaching Ile Amsterdam? Why?
15. What kind of person is uncle Khosrove? Do you like him? Why /Why not?

II. Long Answers (120-150 words)

1. Describe the intimate relationship of grandmother with the sparrows. How did the sparrows mourn her death?
2. Hardships often brings out the best in people. Discuss with special reference to the chapter 'We're Not Afraid to Die ….'.
3. As Mourad, write a letter of apology to farmer John Byro for unlawfully keeping his white horse with you for weeks.

MATHEMATICS: PROJECT

ACTIVITIES OF LAB MANUAL

1.To verify distributive law for three given non-empty sets A, B and C, that is, A ∪ (B ∩ C) = (A ∪ B) ∩ (A ∪ C)

2. To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is 2^n.

3. To represent set theoretic operations using Venn diagrams.

4. To distinguish between a Relation and a Function.

PROJECT

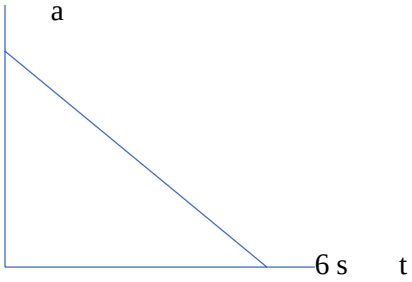
Prepare a project based on the Fibonacci sequence, their properties and similar pattern found in nature

Project may be in the form of ppt/video/model

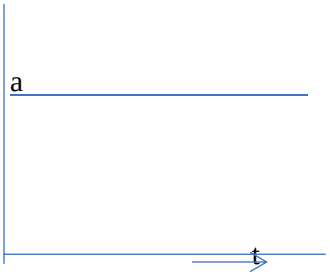
PHYSICS: ASSIGNMENT

1. The acceleration 'a' of a particle moving with an initial velocity u varies with distance x as a = k $\sqrt{x}$ where k is a constant. Find the distance covered by the particle when its velocity becomes '3u'.

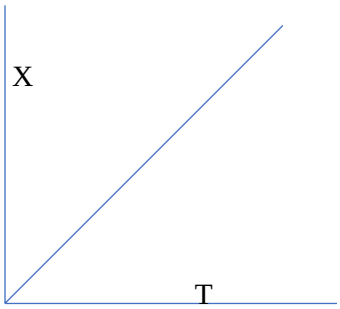
2. A particle starts from rest at x = 0. Its acceleration at time t = 0 is 5 ms^{-2} which varies with time as shown in figure. Find (i) the maximum speed of the particle and (ii) its displacement in time interval from t = 0 to t = 2 s.



3. The velocity of a particle moving in a straight line varies with displacement x as $v = \sqrt{9 - x}^{\,2}$. Find the maximum acceleration of the particle.
4. A body starting from rest and moving with constant acceleration covers a distance s_1 in the 4^{th} second and a distance s_2 in the 6^{th} second. Find the ratio of s_1/s_2.
5. A body, starting from rest, moves in a straight line with a constant acceleration a for a time interval t during which it travels a distance s_1. It continues to move with the same acceleration for the next time interval t during which it travels a distance s_2. Find the relation between s_1 and s_2.
6. The velocity v of an object, moving in a straight line varies with time't' as $v = at - bt^2$ where 'a' and 'b' are constants. Find the average velocity of the object in the time interval t = 0 s to t = 2 s.
7. A ball is released from rest from the top of a tower of height 'h'. It takes T seconds to reach the ground. What was the height of the ball from the ground in T/3 seconds?
8. In the expression $P = \frac{\alpha}{b} e^{-ax}$ where P is pressure, x is a distance and a and b are constants. Find the dimensional formula for b.
9. If velocity (V), acceleration (A) and force (F) are taken as fundamental quantities, find the dimensions of Young's modulus.
10. Frequency (n) of a tuning fork depends upon length (l) of its prongs, density (ρ) and Young's modulus (Y) of its material. Derive the relation between frequency and Young's modulus using dimensional analysis.
11. Following is the acceleration time graph for uniformly accelerated motion. Draw the velocity time and position time graphs.



12. Following is the displacement – time graph for uniformly accelerated motion, draw the corresponding velocity time graph and acceleration time graph.



13. A body is thrown vertically up with a velocity ‘u’. it passes through three points A, B and C in its upward journey with velocities u/2, u/3 and u/4 respectively. Find the ratio AB/BC.
14. A person throws two balls vertically upward with the same velocity, one after the other he throws the second ball at time when the first ball is at the highest point. If he throw the balls in an interval of 1 s, what is the maximum height attained by each ball?
15. The velocity of a body moving along the positive x –axis varies with displacement (x) from the origin as v = k$\sqrt{x}$, where ‘k’ is a constant. Draw the x-t graph representing the above motion.

MUSIC:

Write ragas Composition with simple elaborations and few tanas in the following Ragas-

- Jaunpuri
- Write the journey of pandit vishnu digambar pulskar
- Prepare one folk song (Any of your choice)

ART INTEGRATED PROJECT

Make one complete notation of any of the folk song
With meaningful message based on journey of any famous artist.

PAINTING:

Any work related to paper mashe technique

- It may be any figure
- Paper mashe sheet
- Any pot
- Work on cardboard any composition

PHYSICAL EDUCATION:

1. **Make a practical notebook**

   Topic – ATHLETICS

- Introduction
- History
- Latest rules
- Draw a diagram of standard track (400 M)
- Track & field events
- Any two events of jumping
- Any two events of throwing
- Terminologies related to athletic events
- Sports awards, records
- Write detail of any two games / sports which is in your syllabus

2. **Make a project file**

- It should consists of 18 to 22 pages
- **Write in detail –** Any one **competition / tournament** of International level

OR

- Write down the **biography** of any one International player

any International tournament.

FINANCIAL MARKET MANAGEMENT

(A) Preparation of Power Point Presentation on different Investment options available for Investment

(B) Visit any Post office and prepare a detailed note on different schemes offered by Post offices

(C) Observe NSE (National Stock Exchange) website of atleast 15 working days and note down:

(i) Nifty 50 opening & Closing value on those days

(ii) Top gainers & losers on those days.

Typography and computer Applications:

Design a 5 pages brochure in canva / Microsoft word depicting your thoughts on G20 Summit

INFORMATION PRACTICES: ASSIGNMENT

Q1. How many types of strings are supported by Python?

Q2. **What is None literal in Python?**

Q.3 What is the difference between a keyword and an identifier?

Q.4 What are literals in Python? How many types of Literals allowed in Python

Question 1 Special meaning words of Pythons, fixed for specific functionality are called .....

1. Identifiers
2. functions
3. Keywords
4. literals

Question 2

Names given to different parts of a Python program are ..... .

1. Identifiers
2. functions
3. Keywords
4. literals

Question 3

Data items having fixed value are called ..... .

1. Identifiers
2. functions
3. Keywords
4. literals

Question 4

Which of the following is/are correct ways of creating strings ?

1. name = Jiya
2. name = 'Jiya'
3. name = "Jiya"
4. name = (Jiya)

Question 5

Which of the following are keyword(s) ?

1. name
2. Print
3. print
4. input

Question 6

Which of the following are valid identifiers ?

1. my name

2. _myname
3. myname
4. my-name

Question 7

Which of the following are literals ?

1. myname
2. "Radha"
3. 24.5
4. 24A

Question 8

Escape sequences are treated as ..... .

1. strings
2. characters
3. integers
4. none of these

Question 9

Which of the following is an escape sequence for a tab character ?

1. \a
2. \t
3. \n
4. \b

Question 10

Which of the following is an escape sequence for a newline character ?

1. \a
2. \t
3. \n
4. \b

Question 11

Which of the following is not a legal integer type value in Python ?

1. Decimal
2. Octal
3. Hexadecimal
4. Roman