



SACRED HEART SCHOOL

Jhumri Telaiya, Koderma

ASSIGNMENTS FOR SUMMER VACATION ASSIGNMENT (2024-25)

CLASS- XII

SUBJECT- ENGLISH Project work

Note:- The project may include the following -

- cover page, with title of project, school details of the student
- statement of purpose/ objective/ goals
- certificate of completion under the guidance of the teacher
- materials such as scripts for the role play, questionnaires for interview, written assignments, essay, survey reports and other material evidence of learning progress and academic accomplishment
- list of resources/ bibliography

* the project must be handwritten

PROJECT: PLIGHT OF OLD AGED PEOPLE (My Mother at sixty six)

- Index
- Acknowledgement
- Certificate of completion
- Objectives
- About the poetess (with photos)
- Poetess' personal experience - common paradox of Human Relationships
- Portrayal of sensational separation between a Mother and a Daughter
- Plight of old aged people : Ugly truth about old age (with photos)
- Reasons behind the need of old age homes
- Efforts for stress-free and secured life of aged people
- Visit to an old age home (photos of some aged people living in such homes)
- How to strike a balance between Duties and Relationship of children and society
- Role of youth to improve the plight of Aged People
- Bibliography of reference

SUBJECT- PHYSICS

- Derive electric potential energy in external electric field. Discuss its different causes.
- Solve numerical chapter-32, H.C Verma

Questions 4 to 24.

SUBJECT- CHEMISTRY

Topic- Complete NCERT Book exercise (Ch-1 & Ch-2)

Topic -Do your practical work

SUBJECT- BIOLOGY

- Write a short biography about famous scientist, G. J. Mendel as father of genetics, which performed hybridization experiment on a garden pea plant (*Pisum sativum*) in 500 words.
- Present time India's populations are increasing more and more . What methods and contraceptive methods are adoptive to control population and VD's.
- Students will visit the garden and observed the garden pea plant .Name the scientist which are associated with the hybridization experiment related on garden pea 🌱. Find its related experiment of hybridization of monohybrid and dihybrid cross and obtain its ratio as phenotypic and genotypic ratio 3:1, 1:2:1, 9:3:3:1 & 1:2:1:2:4:2:1:2:1.

SUBJECT-MATHEMATICS

- consider $F: R_+ \rightarrow [-5, \infty]$ given by $f(x) = 9x^2 + 6x - 5$, show that f is one-one and onto.
- Let $A = \{1, 2, 3\}$, write all the relations containing (1, 2) and (1, 3) which are reflexive and symmetric but not transitive.
- Evaluate: $\sin^{-1}\sin(10)$
- Find the value of : $\tan^{-1}\sqrt{3} - \sec^{-1}(-2)$
- Construct a 3 X 4 matrix whose elements are given by –
(a) $a_{ij} = \frac{1}{2} | -3i + j |$ (b) $a_{ij} = 2i - j$
- If $A = \begin{bmatrix} 2 & 4 \\ 3 & 2 \end{bmatrix}$ $B = \begin{bmatrix} 1 & 3 \\ -2 & 5 \end{bmatrix}$ Find $A + B$, $A - B$, AB , BA .

7. Simplify $-\cos\theta \begin{bmatrix} \cos\theta & \sin\theta \\ -\sin\theta & \cos\theta \end{bmatrix} + \sin\theta \begin{bmatrix} \sin\theta & -\cos\theta \\ \cos\theta & \sin\theta \end{bmatrix}$

8. If $A = \begin{bmatrix} 3 & 1 \\ -1 & 2 \end{bmatrix}$ show that $A^2 - 5A + 7I_2 = 0$

SUBJECT- PHYSICAL EDUCATION

SUBJECT- PHE. (Holiday Home work) - PRACTICAL RECORD FILE

01. Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)* 6 Marks

02. Proficiency in Games and Sports

(Skill of any one IOA recognised Sport/Game of Choice)** 7Marks

03. Yogic Practices 7Marks

04. Record File ***5Marks

05. Viva Voce (Health/ Games & Sports/ Yoga) 5Marks

*Test for CWSN (any 4 items out of 27 items. One item from each component: Aerobic Function Body Composition, Muscular strength & Endurance, Range of Motion or Flexibility)

** CWSN (Children With Special Needs - Divyang): Bocce/Boccia, Sitting Volleyball, Wheel Chair Basketball, Unified Badminton, Unified Basketball, Unified Football, Blind Cricket, Goalball, Floorball, Wheel Chair Races and Throws, or any other Sport/Game of choice.

**Children With Special Needs can also opt any one Sport/Game from the list as alternative to Yogic Practices. However, the Sport/Game must be different from Test - Proficiency in Games and Sports'

* Record File shall include:

Practical-1: Fitness tests administration. (SAI Khelo India Test)

Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.

► Practical-3: Anyone one IOA recognised Sport/Game of choice. Labelled diagram of Field & Equipment. Also mention its Rules, Terminologies & Skills.

SUBJECT- COMPUTER SCIENCE

1. Write a Python program to sum all the items in a list.

2. Write a Python program to get the largest number from a list.

3. Write a Python program to count the number of strings where the string length is 2 or more and the first and last character are same from a given list of strings.

Sample List : ['abc', 'xyz', 'aba', '1221']

4. Write a Python program to remove duplicates from a list.

5. Write a Python program to generate and print a list of first and last 5 elements where the values are square of numbers between 1 and 30 (both included).