

St. Pushpa Senior Secondary School

Summer Assignment, Session 2024-25

Class: X

Chemistry:

1. Define a chemical bond. Also write all its types with definition, causes of the formation of every type of bond with suitable examples showing electron- dot Structure of each type of bond. Taking examples of chlorine , methane ,hydrochloric acid , Ammonia , ammonium chloride ,Nitric acid and sulphuric acid,
2. Draw modern form of Periodic table on a chart paper showing metals, non- metals and gases and also indicate different blocks and groups of the periodic table with Neat and tidy.
3. Write an essay on the periodic properties of elements eg: electronegativity, ionization potential, electron affinity and also show the variations in groups and in periods in details.

Mathematics:

1. Give a detailed introduction on Matrices. Define its origin and explain its kind. Explain the algebraic functions of matrices and give solved problems based on this.
2. Describe what is coordinate geometry. Name and describe the system of coordinates and coordinates of point. Also describe the reflection of a point in a line and reflection of a point in a point with the suitable diagrams and give solved problems related to reflection.
3. How can the concept of mensuration and its application to real-life situations be explained? Explain in detail the geometrical figures with suitable diagrams and give solved problems related to mensuration.
4. Describe in detail what is central tendency and its ways of measuring central tendency. Describe the methods used to find mean of grouped data. Also define upper and lower quartiles, inter quartile range, ogives, median of grouped data and mode from histogram. Give solved problems related to statistics.

Geography:

1. What is meant by waste management? How does it affect the environment and what measures have been taken by the government so far in India to manage it? What will be your action for the management of waste?
2. What is meant by transport? What is your view on the Indian transport system? Explain why Indian railways are considered as an easy transport system in India?
3. Looking at the land system of India, how will you explain the land resource? explain the Indian mountains and it works with the help of diagrams.
4. How would you like to comment on India's climatic system as well as explain India's climate and season with the help of map

Computer:

1. Explain all the principles of object-oriented programming.
2. What is token? Explain all types of token in java.
3. Differentiate between unary and Binary operators with the help of examples.
4. Write a programme to input parallel sides and height of trapezium. Calculate and print area of triangle using $\text{Area} = \frac{1}{2} \times (a + b) \times h$

HINDI

1. संदेह कहानी का विश्लेषण करते हुए पत्रों के व्यक्तित्व व्यवहार और भूमिका का वर्णन कीजिए तथा कहानी में प्रस्तुत संघर्ष और उनके समाधान का वर्णन कीजिए।
2. बड़े घर की बेटी कहानी का सारांश प्रस्तुत करते हुए बताइए कि प्रेमचंद एक यथार्थवादी कहानीकार थे।
3. सूरदास के पदों के आधार पर सिद्ध कीजिए की सूर वात्सल्य एवं श्रृंगार के सिद्ध कवि थे।
4. तुलसीदास के पदों के आधार पर उनके भक्ति भावना पर प्रकाश डालिए तथा उनके किन्हीं पांच रचनाओं का संक्षिप्त परिचय दीजिए।

English Literature:

- Instructions Candidates will be required to undertake two written assignments of 1000-1500 words.
- Topics (X A, B, C)

ROLL NUMBER: 1 – 15

- Refer to Act 3 Scene 1 of the drama Julius Caesar, Write an imaginative diary entry of Brutus on that day of Caesar's assassination. 2. Imagine that you are a news reporter in the King Francis Kingdom. Prepare a news report you witnessed in the gallery about the bloody royal sport.

ROLL NUMBER: 16 – 31

- Imagine you are the beloved of Julius Caesar and a friend of Antony. You got a chance for oration after Antony in the marketplace. Write a speech to convince Romans and against conspirators. 2. Imagine you are the poet of the poem 'Haunted House'. Write about your experience with ghosts.

ROLL NUMBER: 31 – 46

- You are the news reporter in Rome during Caesar's assassination. Prepare an investigative news report for your newspaper. 2. Refer to the poem The Glove and the Lions. Describe the scene in detail.

ROLL NUMBER: 47 – 57

- Imagine you are one of the Romans who witnessed Brutus' and Antony's speeches. Who do you support? Why? Write in detail. 2. Prepare a detailed appreciation of the poem 'Haunted Houses.'

ENGLISH LANGUAGE

1. Conducting ASL
2. Prepare a Short Video on any topic

BIOLOGY

- What is cell cycle and cell division? Describe all the stages of mitosis along with the diagrams.
- What is an endocrine system? Describe all the endocrine glands present in human along with their
- diagram, location, related hormones and mention the disorders caused due to their hypersecretion and
- hyposecretion.
- What is photosynthesis? Describe it's both phases with the diagram of Chloroplast . Mention the factors
- which affect The rate of photosynthesis.
- Explain the circulatory System of human along with the diagram and structure of heart. Describe double
- circulation and cardiac Cycle with flow chart diagram.