D.A.V. PUBLIC SCHOOL, SASARAM

H.A. & P.W. FOR DEEPAWALI & CHHATH VACATION

CLASS – X | SESSION: 2026–27

SCIENCE

Q1. Derive an expression for power in terms of voltage and resistance.

An electric bulb is connected to a 200-volt generator. The current is 0.5 ampere. What is the power of the bulb?

Q2. Write the molecular formula, structural formula and IUPAC name of the first 10 members of each of the following homologous series:

- Alkanes
- Alkenes
- Alkynes

Q3. A student observes that yeast cells produce small outgrowths that eventually separate from the parent cell.

(a) Identify the reproductive process.

(b) Why is it considered asexual reproduction?

ENGLISH

Chapters: For Anne Gregory and The Proposal

A. HOME ASSIGNMENT (H.A.)

Q1. For Anne Gregory: How does W.B. Yeats highlight the difference between physical beauty and inner beauty in the poem? Explain the central message in your own words.

Q2. The Proposal: How do the arguments between Lomov and Natalya over Oxen Meadows and their dogs create humour in the play?

B. PROJECT WORK (P.W.)

1. For Anne Gregory – Beyond Physical Beauty: Prepare a creative poster highlighting the importance of inner beauty, values and personality. Add a suitable slogan and a short paragraph (80–100 words) explaining the message of the poem.

2. The Proposal – A Comic Strip: Create a comic strip depicting the humorous arguments between Lomov and Natalya. Include suitable illustrations, dialogues and captions.

Instructions

- Complete H.A. in your English notebook.
- Submit P.W. in a separate project file.
- Maintain neatness, creativity and originality.

हिन्दी

गृह कार्य (H.A.)

1. **संस्कृत व्यक्ति की पहचान हेतु लेखक ने कौन-सा उदाहरण दिया है?**

2. **'यह दंतुरित मुस्कान' कविता के आधार पर बताइए कि बच्चे की मुस्कान, उसका शरीर और उसका स्पर्श क्या-क्या प्रभाव पैदा करते हैं?**

परियोजना कार्य (P.W.)

3. **सूरदास के जीवन-परिचय को लिखिए।** (**सचित्र चार्ट पेपर पर**)

संस्कृत

1. "**तिरुक्कुरल् सूक्ति सौरभम्**" – **पञ्च श्लोकानि अर्थेन सह चार्ट-पत्रे लिखत।**

2. **दीपावली-स्वच्छताविषये मित्रेण सह एकं संवादं लिखत।**

3. **घटिकाचित्रं निर्माय समयं लिखत** (**चार्ट-पत्रे**): 8:45, 10:15, 12:00, 1:30।

SOCIAL SCIENCE

Q1. Show Nuclear Power Plants on India's political map.

HOME ASSIGNMENT (H.A.)

Q2. Write steps and suggestions to reform political parties.

Q3. "Print culture created a condition within which the French Revolution occurred." Give arguments in favour of this statement.

Q4. How does money solve the problem of double coincidence of wants? Explain with an example.

MATHEMATICS

SECTION A: WRITTEN ASSIGNMENT

Q1. Arithmetic Progression (AP)

The sum of the first 15 terms of an AP is 600. If its first term is 10, find its common difference.

Q2. Surface Area and Volume – Combined Solids

A toy is in the form of a cone mounted on a hemisphere. The common radius of the hemisphere and cone is 7 cm, and the height of the cone is 24 cm. Find the total surface area of the toy. (Use $\pi = 22/7$).

Q3. Height and Distance

A person standing on the top of a 20 m high building observes the top of a tower at an angle of elevation of 30° and its foot at an angle of depression of 60°. Find the height of the tower.

SECTION B: PROJECT WORK

Topic: Arithmetic Progression (AP)

Title: Sum of the First n Natural Numbers

Prepare a mathematics project covering the following points:

- Introduction to Arithmetic Progression.
- Write the first 10 natural numbers in AP form.
- Derive the formula for the sum of the first n natural numbers: $S_n = n(n + 1)/2$.
- Explain the formula with the help of an example.
- Verify the formula for n = 10.
- Represent the sum of natural numbers using a suitable diagram or visual arrangement.

- Write at least three real-life applications of the sum of natural numbers.

Instructions for Project Work

- Use A4-size sheets or a project file.
- Write neatly and systematically.
- Include suitable diagrams and illustrations.
- Mention the conclusion at the end of the project.

ARTIFICIAL INTELLIGENCE

Q1. How does an entrepreneur bring changes in society?

Q2. Write any five qualities of an entrepreneur.

Q3. What is evaluation? Do you think evaluating an AI model is essential in an AI project cycle? Explain.