

DAV Public School, DVC, MTPS, Bankura

Summer Holiday Homework 2026

Class: IX

Subject: English

ENGLISH INTERDISCIPLINARY PROJECT

The Young Citizen Times : A social awareness newspaper project

Project Overview

Students will design a handwritten newspaper based on important social awareness themes such as **literacy, financial awareness, cultural literacy, environmental responsibility, and responsible citizenship**, taking cues from **pg no. 21-22** of the **Kaveri** textbook.

The newspaper should resemble a real newspaper with attractive headings, columns, illustrations, advertisements, interviews, and puzzles.

Important instructions: Format of the project

Use a whole chart paper, fold it like a newspaper. So, the newspaper has four pages now.

All work must be handwritten neatly.

Use sketches, borders, coloured headings, and relevant illustrations.

Maintain a newspaper-style layout with: headlines, columns, bylines, captions, boxes and highlights

Mandatory sections of the Newspaper:

1. Front Page(pg 1) News Report

Topic Suggestions (choose **any 1** topic from the ones given below)

- Importance of Literacy
- Digital India
- Save Water Campaign

- Financial Awareness Among Youth
- Cultural Preservation

Instructions:

Write one main news Article (150–200 words).

Add: catchy headline, date line, reporter’s name with caption.

2. Editorial Section

Topic: “Education: The Strongest Weapon for Change”

Instructions:

Write an **editorial** expressing your opinion. Use persuasive language and formal tone.

Use the following cues in your Editorial

- importance of literacy,
- role of youth,
- government initiatives,
- your suggestions.

Word Limit: 150–180 words

3. Page 2: Financial advice column

Column title examples:

- Money Matters
- Smart Saver
- Teen Finance Talk

Instructions:

Write short tips on **any 1** of the following:

budgeting, saving pocket money, digital payment safety, avoiding online fraud, importance of banking.

Creative add-on:

Design: sample QR code, mini wallet graphic, fake advertisement for savings schemes.

To do: Explain financial concepts in simple language for teenagers.

4. Cultural Corner

Instructions: Include **any TWO** from the given:

Article on

An Indian festival, a folk dance, an art form, a regional cuisine, a traditional attire, cultural proverb with meaning.

Add drawings/mini travel snippets,/"Did You Know?" facts.

Cue: Celebrate India's diversity like a storyteller.

5. Page3: Interview Section

Suggested Interview Topics:

- Interview with a teacher on literacy.
- Interview with grandparents about old traditions.
- Interview with a student on digital learning.

Instructions:

Write minimum 6–8 questions and answers.

Use proper interview format.

Cue: Ask meaningful questions, not one-word-answer questions.

6. Cartoon Strip / Comic Panel

Theme Suggestions:

- Mobile addiction
- Importance of reading
- Waste management
- Examination stress
- Financial irresponsibility

Instructions:

- Draw 3–4 panels.
- Add dialogues and humour.
- Ensure a social message is conveyed.

Cue: A cartoon should make readers smile and think at the same time.

7. Page4: Advertisement Section

Instructions:

Create one advertisement promoting any 1 of the following:

literacy campaign/eco-friendly products/cultural festival/

financial awareness programme.

Include: slogan, logo, persuasive lines, contact details (imaginary).

Cue: Use catchy phrases like real advertisements.

8. Puzzle & Fun Corner

Include: crossword puzzle, word search, riddles, idioms quiz, current affairs quiz.

Cue: Make learning playful and interactive. Use any popular National newspaper as a reference for the project.

D.A.V. PUBLIC SCHOOL, DVC, MTPS

SESSION : 2025-2026

HOMEWORK FOR SUMMER VACATION

CLASS : IX

SUBJECT : BENGALI

১) নীচের অনুচ্ছেদটি পড়ে সঠিক বিকল্প উত্তর নির্বাচন করে লেখো-

শ্যামলদাকে জিজ্ঞাসা করলাম, লোকটা কে? ও হল শিউলি। খেজুর গাছে হাঁড়ি বাঁধা হবে তো, তাই এসেছে।

পুরুষ মানুষের নাম শিউলি হয়, আমি কখনও শুনিনি। তাই একটু আশ্চর্য হলাম। দাদা বললেন, কাল ভোরে চলে আসিস। খেজুর রস খাওয়াব।

পরের দিন ভোরবেলা খেজুর রস খেতে গেছিলাম। তার পরের দিন বিকেলে গেছিলাম গাছে হাঁড়ি বাঁধা দেখতে। রস সংগ্রহের জন্য খেজুর গাছের গায়ে যে হাঁড়ি বাঁধতে হয়, সেটা জানা ছিল। কিন্তু পদ্ধতিটা জানা ছিল না। আর জানা ছিল না, শিউলি কোনো ব্যক্তি বিশেষের নাম নয়। খেজুর গাছের রস যারা সংগ্রহ করে তাদেরকেই বলা হয় শিউলি। এই প্রসঙ্গে একটা কথা বলে রাখি, ঠিক একইরকম আশ্চর্য হয়েছিলাম শুনে যে, বাঁশের কঞ্চি দিয়ে যারা মোড়া বানায়, তাদেরকে এই কলোনি এলাকায় বলা হয় ঋষি। যে সময়ের কথা বলছি, তখন মোড়া ব্যাপারটা সাধারণ মধ্যবিত্ত এবং নিম্নবিত্ত বাঙালি বাড়িতে ছিল একটা অত্যাবশ্যকীয় জিনিস। প্লাস্টিকের সঙ্গে ঘর-বসত তখনও শুরু হয়নি। তাই অতিথি-অভ্যাগত বাড়িতে এলে মোড়া পেতে বসতে দেওয়াটাই ছিল রীতি। এগুলো কিন্তু শান্তিনিকেতনে যে ধরনের চামড়ার ওপর কাজ করা শৌখিন মোড়া পাওয়া যায় তা নয়। ইদানীং বেতের ওপর পাটের দড়ি জড়িয়ে যেসব ভারীসারি মোড়া তৈরি হয়, সেসবই নয়। একেবারে সাধারণ মামুলি রোজকার ব্যবহারের মোড়া। প্লাস্টিক হুমহাম করে ঘরে ঘরে ঢুকে পড়ার পর মোড়ার প্রয়োজন ফুরিয়েছে। কারণ সে তো আর অজর-অমর নয়। পৃথিবীকে দূষিত করার ক্ষমতাও তার নেই। নেহাতই স্বল্পায়ু উপকরণ দিয়ে তৈরি।

ক) এখানে কোন সময়কার কথা বলা হয়েছে?

অ) যখন চামড়ার ওপর কাজ করা মোড়ার চল ছিল।

আ) যখন পাটের দড়ি জড়ানো বেতের মোড়ার চল ছিল

ই) যখন বাঁশের কঞ্চি দিয়ে বানানো মোড়ার চল ছিল

ঈ) যখন প্লাস্টিকের তৈরি বসার আসনের চল হল।

খ) মন্তব্য(অ): শ্যামলদার বাড়িতে দেখা লোকটির ব্যক্তিগত নাম শিউলি।

মন্তব্য (আ): শ্যামলদার বাড়িতে দেখা লোকটির পেশাগত নাম শিউলি।

i) মন্তব্য অ সঠিক কিন্তু মন্তব্য আ ভুল

ii) মন্তব্য অ ভুল কিন্তু মন্তব্য আ সঠিক

iii) মন্তব্য অ ও মন্তব্য আ দুটাই সঠিক

iv) মন্তব্য অ ও মন্তব্য আ দুটাই ভুল

গ) গদ্যাংশটি মূলত-

i. স্মৃতিচারণামূলক ii. স্বীকারোক্তি মূলক iii. নীতিশিক্ষামূলক iv. দেশাত্মবোধমূলক

ঘ). 'স্বপ্নায়ু' শব্দের বিপরীতার্থক শব্দ কোনটি?

i. দীর্ঘায়ু ii. অল্পায়ু iii. হ্রস্বায়ু iv. শুভায়ু

পাঠ্যাংশ থেকে প্রদত্ত প্রশ্ন গুলির সঠিক বিকল্প উত্তরটি বেছে নিয়ে লেখো -

১) " এইটি ফাটিকের সবচেয়ে বাজিত " - কোন কথা তার বাজিত ?

ক) তার মামাতো ভাইরা স্কুলে তার পরিচয় দিতে চাইত না।

খ) তার মা মাখনকে বেশি ভালোবাসত।

গ) মামীর স্নেহহীন চোখে ভালোবাসা না দেখতে পেয়ে।

ঘ) স্কুলে পড়া বলতে না পারলে।

২) " ফাটিক কিছু শশব্যস্ত হইল " - কখন ফাটিক শশব্যস্ত হয়েছিল ?

ক) মাখন মাটিতে পড়ে গেল। খ) বই হারিয়ে ফেলার পর।

গ) কলকাতা যাওয়ার সময়। ঘ) পূজার ছুটিতে বাড়ি আসার জন্য।

৩) মন্তব্য ০ঃ তেরো- চৌদ্দ বৎসরের ছেলের মতো পৃথিবীতে এমন
বলাই আর নাই।

যুক্তি ০ঃ কারণ তাহাদের কোন শোভা থাকে না।

ক) মন্তব্য ঠিক যুক্তি ভুল

খ) মন্তব্য যুক্তি উভয় ঠিক

গ) মন্তব্য ও যুক্তি উভয় ঠিক নয়

ঘ) যুক্তি ঠিক মন্তব্য ভুল

৪) " খেয়া " কবিতায় কোন বিশেষ সময়ের উল্লেখ করা হয়েছে --

ক) সকাল খ) সকাল - সন্ধ্যা গ) বিকাল ঘ) সন্ধ্যা

৫) " পৃথিবীতে কত দ্বন্দ্ব ---" দ্বন্দ্ব " শব্দটির অর্থ কী ?

ক) মিলন খ) ক্ষতি গ) বন্ধুত্ব ঘ) কলহ

৬) মন্তব্য (১) ০ঃ এই খেয়া চিরদিন চলে নদী স্রোতে

কেহ যায় ঘরে , কেহ আসে ঘর হতে

মন্তব্য (২) ০ঃ খেয়া কবিতায় জীবনের চিরন্তন সত্য প্রকাশ পেয়েছে

ক) মন্তব্য (১) ঠিক মন্তব্য (২) ভুল খ) মন্তব্য (২) ঠিক মন্তব্য (১) ভুল

গ) মন্তব্য (১) ও মন্তব্য (২) উভয় ঠিক ঘ) মন্তব্য (১) মন্তব্য (২) উভয় ভুল



Project Work (প্রকল্পের কাজ)

- ১) বাংলা সংবাদপত্রের(যেকোনো বাংলা সংবাদপত্র) বিশেষ খবরগুলির টুকরো অংশ (paper cutting) নিয়ে একটি সুন্দর কোলাজ তৈরি কর
- ২) খেয়া কবিতাটির বিষয়বস্তু চিত্রের মাধ্যমে ফুটিয়ে তোল।



- 1) 'दुर्दिन' और 'उन्नति' शब्द में प्रयुक्त उपसर्ग को पृथक कीजिए।
- 2) 'जय' मूलशब्द का विपरीत अर्थ देने वाला शब्द बनाने हेतु उपयुक्त उपसर्ग का प्रयोग कर नया शब्द लिखिए।
- 3) 'चीफमिनिस्टर' शब्द से उपसर्ग एवं मूलशब्द को अलग कर उपसर्ग के भेद का नाम लिखिए।
- 4) 'धार्मिक' और 'सम्मानित' शब्द से मूलशब्द और प्रत्यय अलग करें।
- 5) तद्धित प्रत्यय से आप क्या समझते हैं? उदाहरण सहित लिखिए।
- 6) 'राष्ट्रीयता' शब्द से प्रत्यय अलग करके लिखिए।
- 7) 'लड़कपन' शब्द का संज्ञा भेद लिखिए।
- 8) 'सुंदर' और 'मीठा' शब्द का भाववाचक संज्ञा बनाकर लिखिए।
- 9) भारत में आज प्रत्येक गली में **जयचंद** घूम रहे हैं।
'जयचंद' शब्द का संज्ञा भेद लिखिए।
- 10) 'आप स्वयं यह कार्य कीजिए।' वाक्य में प्रयुक्त 'आप' कौन-सा सर्वनाम है?
- 11) **निम्नलिखित प्रश्नों के उत्तर लिखिए:-**
 - (क) खेतों में जुताई के लिए बैल और हल कृषि के पारंपरिक उपकरण हैं। कृषि के अन्य पारंपरिक और आधुनिक उपकरणों तथा उनके उपयोग के विषय में पता लगाइए और लिखिए।
 - (ख) भारत में बैल केवल पशु नहीं बल्कि कृषि संस्कृति का अभिन्न अंग हैं। लिखिए कि भारतीय गाँवों एवं शहरों में भी बैल किस-किस काम में सहायक होते हैं?
 - (ग) हीरा और मोती की विशेषताएँ कुछ-कुछ समान और कुछ-कुछ अलग हैं, किंतु उनकी भिन्न विशेषताएँ एक-दूसरे को पूरा करती हैं। कैसे?
 - (घ) "हीरा ने तिरस्कार किया- गिरे हुए बैरी पर सींग न चलाना चाहिए।"
"यह सब ढोंग है। बैरी को ऐसा मारना चाहिए कि फिर न उठे।"
आपका इस संबंध में क्या विचार है? आप किसके साथ हैं- हीरा के या मोती के या दोनों के? क्यों?
- 12) **गतिविधि**

"बाल-सभा ने निश्चय किया, दोनों पशुवीरों को अभिनंदन-पत्र देना चाहिए।"
हीरा और मोती के लिए अभिनंदन-पत्र लिखिए। (A4 साइज़ पेपर या चार्ट पेपर में लिखिए।)

DAV Public School, DVC MTPS, Bankura

Summer Holiday Homework 2026

Class : IX

Subject : Sanskrit

01. प्रथमपाठस्य आधारेण अधोलिखित-प्रश्नाः दीयन्ते ।

(क) प्रदत्तप्रश्नानाम् उत्तराणि एकपदेन लिखत ।

- (i) संस्कृतं किम् सम्पादकम् अस्ति ?
- (ii) संस्कृतं कस्य संस्कारकम् अस्ति ?
- (iii) संस्कृतं केषु एकताकारकं भवति ?
- (iv) संस्कृतं विश्वकल्याणाय कीदृशम् अस्ति ?
- (v) संस्कृतं कयोः उत्कर्षदं भवति ?
- (vi) संस्कृतं कीदृशं वनम् अस्ति ?

02. प्रथमपाठस्य आधारेण अधोलिखित-प्रश्नाः दीयन्ते ।

(ख) प्रदत्तप्रश्नानाम् उत्तराणि पूर्णवाक्येन लिखत ।

- (i) सर्वतः कस्याः संस्थापकं संस्कृतम् ?
- (ii) संस्कृतं कासां परिष्कारकम् ?
- (iii) पञ्चशीलानां नामानि लिखत ?
- (iv) संस्कृतं कयोः उद्वेलनं भवति ?
- (v) संस्कृतं केषां व्रतम् अस्ति ?
- (vi) के चतुर्वर्गः इति नाम्ने ख्याताः सन्ति ?
- (vii) संस्कृतं केषां दातारः अस्ति ?
- (viii) संस्कृतं कस्याः गृहम् अस्ति ?

03. मञ्जूषायाः सहयतया अधोलिखित श्लोकस्य अन्वयं पूरयत ।

त्यागसन्तोषसेवाव्रतं संस्कृतम् , विश्वकल्याणनिष्ठायुतं संस्कृतम्
ज्ञानविज्ञानसम्मेलनं संस्कृतम् , भुक्तिमुक्तिद्वयोद्वेलनं संस्कृतम् ।।

अन्वयः – संस्कृतं ----- व्रतम् अस्ति, संस्कृतं विश्वकल्याणाय ----- अस्ति,
----- सम्मेलनम् अस्ति -----, तथा भुक्तिमुक्तिद्वय ----- अस्ति
संस्कृतम् ।

मञ्जूषा- संस्कृतम् , त्यागसन्तोषसेवारूपं , उद्वेलनम् , निष्ठायुतम् , ज्ञानविज्ञानयोः

04. अधोलिखितवाक्येषु रेखाङ्कितानि पदानि आधृत्य प्रश्ननिर्माणं कुरुत ।

- (i) संस्कृतं पूर्वजानां यशः स्मारकं अस्ति ।
- (ii) संस्कृतं भारतीयैकतायाः साधकं अस्ति ।
- (iii) पञ्चशीलानां प्रतिष्ठापकं संस्कृतम् ।
- (iv) संस्कृतं सत्यनिष्ठं शिवं सुन्दरं च अस्ति ।

05. अधोलिखितवाक्येषु रेखाङ्कितानि पदानां सन्धिं सन्धिविच्छेदं वा कुरुत ।

- (i) संस्कृतं भारतीयैकतायाः साधकं अस्ति ।
- (ii) संस्कृतं भुक्तिमुक्तिद्वय + उद्वेलनम् अस्ति ।
- (iii) धर्मः कामार्थः मोक्षप्रदं संस्कृतम् ।
- (iv) ऐहिक + आमुष्मिक + उत्कर्षदं भवति संस्कृतम् ।
- (v) संस्कृतं विश्वचेतश्चमत्कारकं अस्ति ।

06. यथानिर्देशम् उत्तरत ।

- (i) च्, छ्, ज्, झ्, ज्ञ् वर्णेषु कः वर्णः नासिक्यः अस्ति ?
- (ii) ष् वर्णस्य उच्चारणस्थानं किम् ?
- (iii) इ, छ्, ऋ, य् वर्णेषु कः वर्णः तालव्यः न अस्ति ?
- (iv) स्, ब्, ण् वर्णेषु कः वर्णः दन्त्यः अस्ति ?
- (v) गजः इति पदे कस्य उच्चारणस्थानं कण्ठः न अस्ति ?
- (vi) ऐ, ओ, व् वर्णेषु कस्य उच्चारणस्थानं कण्ठौष्ठम् अस्ति ?
- (vii) कृपा इति पदे कस्य उच्चारणस्थानं मूर्धा अस्ति ?
- (viii) वर्षा इति पदे ब् वर्णस्य उच्चारणस्थानं किम् ?

07. परियोजना कार्यम् । (project work)

उच्चारणस्थानम् इति व्याकरणपाठे वाक्-यन्त्रस्य चर्चा अस्ति । भवन्तः / भवत्यः अस्माकं मुखमण्डले उच्चारणस्थानानाम् चित्रं रचयित्वा तेषां नामानि संस्कृतेन लिखत ।

D.A.V. PUBLIC SCHOOL, DVC, MTPS, Bankura

Summer Holiday Homework 2026

CLASS: IX

SUBJECT: SOCIAL SCIENCE

| HISTORY | |
|------------------|---|
| 1. | Prepare a timeline and highlight important developments in early human life such as use of fire, tools, wheel, and agriculture on Palaeolithic Age to Neolithic Age. |
| 2. | A comparative discussion on Indus Valley Civilisation and Mesopotamian civilisation. |
| CIVICS | |
| 1. | <p>“Democracy did not develop in one day. It evolved through people’s struggles, ideas, and movements.”</p> <p>Create an attractive flow chart showing the Roots and Growth of Democracy from ancient times to modern India.</p> <p>You must include the following points in sequence:</p> <ol style="list-style-type: none">1) Ancient Greek Democracy2) Magna Carta (1215)3) Indian Freedom Movement4) Adoption of Indian Constitution (1950)5) Present-day Democratic India <p>Instructions:</p> <p>Use arrows, symbols, colours, and pictures wherever possible.</p> <p>Add 1–2 lines explaining the importance of each stage.</p> <p>Mention how democracy helps common people today.</p> <p>Write one creative conclusion at the end:</p> <p>“Why should democracy be protected?”</p> |
| 2. | Paste some paper cutting on an art paper which showing the unfair means of election system. |
| GEOGRAPHY | |
| 1. | Collect newspaper or internet reports of recent earthquakes and volcanic eruptions. Identify the tectonic plate regions where they occurred. |
| 2. | Prepare a chart showing the three types of plate boundaries — convergent, divergent, and transform boundaries — with suitable diagrams and examples. |
| ECONOMICS | |
| 1. | Local Market Analysis (Role of Economists). Visit the local market and find out the prices of any five commodities (ex-biscuits, any electronic items, tea, footwear etc). Find the price of a "Premium" brand of the products and compare it with the "Local" Brand. Prepare a report on the possible reasons behind the difference in prices of the items mentioning the prices of each product of both the Premium and Local Brands. |
| 2. | Find out the occupations of at least ten people around you. Categorise them into the three sectors of the economy - namely, Primary, Secondary and Tertiary. |

D.A.V. PUBLIC SCHOOL, DVC, MTPS, BANKURA

Summer Holiday Homework 2026

CLASS: IX

SUBJECT: SCIENCE

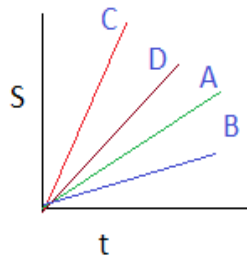
Instructions:

Students are instructed to do their holiday home work of Physics, Chemistry & Biology in their respective copies only

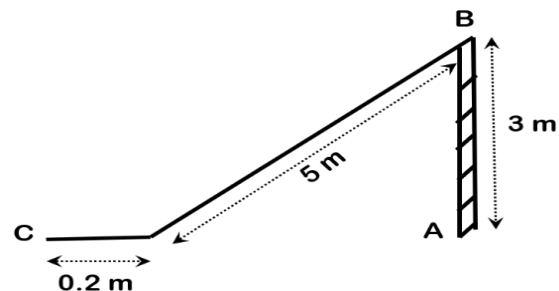
PHYSICS

Answer the following questions:

1. Four cars A, B, C and D are moving on a levelled road. Their distance versus time graph is shown below. Arrange the cars according to their speed in decreasing order.



2.



A boy climbs a vertical ladder from point A (as shown in figure) of a park slider. After reaching to highest point B, he slides down to the end of slider at point C. Find the ratio of the distance travelled by the boy to his displacement.

3. Directions: In each of the following questions, a statement of Assertion is given and a corresponding statement of Reason is given just below it. Of the statements, given below, mark the correct answer as:

- (a) Both assertion and reason are true and reason is the correct explanation of assertion.
- (b) Both assertion and reason are true but reason is not the correct explanation of assertion.
- (c) Assertion is true but reason is false.
- (d) Assertion is false and Reason is true.

Assertion (A): Displacement of a moving object can be zero even when distance is not.

Reason (R): Displacement is a vector quantity and depends only on the initial and final positions.

CHEMISTRY

Answer the following questions:

4. Rohan works in a pathology laboratory and needs to test a specific blood parameter. Which laboratory technique he would choose to separate the particles of blood?
5. Rohan needs 500 g of a 15% salt solution for his household chores, what mass of salt and water will he need to prepare it?
6. Assertion (A): Solutions do not exhibit the Tyndall effect.

Reason (R): The particles in solutions are larger than 100 nm, so they cannot scatter light.

Choose the correct option:

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true.

BIOLOGY

Answer the following questions:

7. Explain Osmosis with a potato osmoscope activity.
8. Difference between normal cell and cancer cell by the help of flow chart.
9. Difference between Mitosis and Meiosis cell division by help of flow-chart
10. Assertion (A): Normal cells stop dividing after some time.

Reason (R): Normal cells follow controlled growth and repair mechanisms.


- (a) Both A and R are true, and R is the correct explanation of A.
 - (b) Both A and R are true, but R is not the correct explanation of A.
 - (c) A is true but R is false.
 - (d) A is false but R is true.
-

DAV PUBLIC SCHOOL, DVC MTPS BANKURA

HOLIDAY HOME WORK (2026-2027)

Class IX- Mathematics

| | |
|-----|--|
| 1. | Represent $\sqrt{2}$ on the number line. |
| 2. | If $x = \frac{2-\sqrt{5}}{2+\sqrt{5}}$ and $y = \frac{2+\sqrt{5}}{2-\sqrt{5}}$, find the value of $x^2 - y^2$. |
| 3. | Show that: $\frac{1}{3-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-2} = 5$ |
| 4. | Show that: $\frac{x^{-1}+y^{-1}}{x^{-1}} + \frac{x^{-1}-y^{-1}}{x^{-1}} = \frac{x^2+y^2}{xy}$ |
| 5. | Factorise: $9a^2 + b^2 + 4c^2 - 6ab + 12ac - 4bc$ |
| 6. | <p>During a sports event at a local school in West Bengal, students are standing in a grid formation on the school's rectangular playground for a drill practice. The head of the physical education department sets up a Cartesian plane to organize the student positions clearly.</p> <p>The origin (0,0) is set at the center of the playground. Each unit on the graph represents exactly 1 meter. The teacher maps out the positions of four specific students (A, B, C, and D) and their positions are plotted as coordinates.</p> <ul style="list-style-type: none"> • Student A: $((3, 5))$ • Student B: $((7, 9))$ • Student C: $((11, 5))$ • Student D: $((7, 1))$ <p>Questions:</p> <p>1. Identifying the Quadrant) In which quadrant does the position of Student A $((3, 5))$ lie?</p> <p>2. Coordinates of the Center) What is the specific geometric name for the origin, and what are the coordinates of the mid-point of the line segment joining Student B $(7,9)$ and Student D $(7,1)$.</p> <p>3. Distance Between Students Find the distance between Student A $((3, 5))$ and Student C $(11, 5)$.</p> <p>4. Identifying the Shape When the positions of Students A, B, C, and D are connected in order, what is the geometric shape formed by the seating arrangement?</p> |
| 7. | Plot the following points and check whether they are collinear or not: (i) $(1, 3), (-1, -1), (-2, -3)$ (ii) $(1, 1), (2, -3), (-1, -2)$ (iii) $(0, 0), (2, 2), (5, 5)$ |
| 8. | Points A $(5, 3)$, B $(-2, 3)$ and D $(5, -4)$ are three vertices of a square ABCD. Plot these points on a graph paper and hence find the coordinates of the vertex C. |
| 9. | Check whether the polynomial $f(x) = 4x^5 + 4x^2 - x - 1$ is a multiple of $2x + 1$. |
| 10. | $x + 1/x = 3$, find the value of $x^2 + 1/x^2$ and $x^3 + 1/x^3$. |

| | |
|-----|--|
| 11. | <p>Simplify</p> $\frac{\sqrt{5}+\sqrt{3}}{\sqrt{5}-\sqrt{3}} + \frac{\sqrt{5}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}.$ |
| 12. | <p>On one day, principal of a particular school visited the classroom. Class teacher was teaching the concept of polynomial to students. He was very much impressed by her way of teaching. To check, whether the students also understand the concept taught by her or not, he asked various questions to students. Some of them are given below. Answer them.</p>  <p>i) Find the value of a, when $x + 1$ is a factor of $x^3 - 2ax^2 + 16$.</p> <p>ii) Find the value of k, when $x - 1$ is a factor of $4x^3 - 3x^2 - 4x + k$.</p> <p>iii) How many zeroes are there in the polynomial $x^2 + 4x + 2$.</p> |
| 13 | <p>Find out the meat point of the following points i) A (2,3) and B (-3.2)</p> |
| 14 | <p>Find out Point of reflection With respect to X axis of the point (-5,-6).</p> |
| 15 | <p>If $a + b + c = 6$ and $ab + bc + ca = 11$, find the value of $a^3 + b^3 + c^3 - 3abc$.</p> |
| | <p>Project work: Prepare an Art integrated Project using Co-ordinate System.</p> |