



BIRLA PUBLIC SCHOOL GANGANAGAR

SUMMER BREAK HOLIDAY HOMEWORK



CBSE AFFILIATION NO. 1730974

Session: 2025-26

Class: X



“An upcoming vacation gives us something to eagerly anticipate.”

As the much-awaited summer break is at our doorsteps, I hope you have planned to spend time with family, explore new ideas, and add value to your household and community. While every child deserves their time to relax and recover from the stresses of school, it is also important not to let grains of time pass aimlessly. To keep your brain occupied, your teachers have created a homework pack incorporating activities that will help stretch your imagination, unravel creativity, and crystallize learnt concepts.

Welcome to your holiday homework plan! This plan is designed to keep you engaged and learning during the break while exploring various aspects of different subjects. Here are the instructions and guidelines for completing your holiday homework:

- Review the weekly tasks and instructions provided. Make what is expected of you for each assignment.
- Keep track of deadlines, materials needed for each task, and any additional resources provided. Organization will help you manage your time effectively and produce high-quality work.
- Approach each task with enthusiasm and creativity. Take the opportunity to explore new ideas, express yourself through writing, and analyse from different perspectives.
- If you have any questions or need clarification on any aspect of the homework plan, don't hesitate to reach out to your teacher or classmates for assistance.

- Take time to reflect on your progress and the skills you've developed throughout the holiday homework period. Consider what you've learned and how you can apply it in the future.
- Ensure that your final presentation is well-organized, clear, and reflects the effort you've put into each task. Pay attention to details such as spelling, grammar, and presentation format.
- Use this opportunity to deepen your understanding and appreciation of the subject.
- Creativity Counts: Feel free to use colors, illustrations, and decorative elements to make your assignments visually appealing.
- Presentation Matters: Pay attention to neatness and organization when completing your tasks. Present your work with pride and attention to detail.
- Reflect and Share: Take time to reflect on your experiences and share your creations with family, friends, or classmates. Discuss what you've learned and how you've grown through the process.
- The Holiday Homework is to be done in the Subject Notebooks only. For Art Integration, use an Office file (cover it with a chart) and use it as instructed in the class.

Subject: English

Section A: Grammar Zone

✓ **Subject-Verb Agreement: Basic Rules**

1. **Singular subject = Singular verb**
 - *She walks to school every day.*
2. **Plural subject = Plural verb**
 - *They play football on Sundays.*
3. **Subjects joined by 'and' = Plural verb**
 - *Rita and Sam are best friends.*
4. **Subjects joined by 'or' / 'nor' = Verb agrees with the nearer subject**
 - *Either the teacher or the students are responsible.*
 - *Neither the players nor the coach was ready.*
5. **Indefinite pronouns like 'each', 'everyone', 'nobody', 'someone' = Singular verb**
 - *Each of the students is present.*
6. **Collective nouns (e.g., team, family, committee) = Usually singular**
 - *The team wins every match.*
7. **Uncountable nouns (e.g., water, information, furniture) = Singular verb**
 - *The furniture needs cleaning.*
8. **Phrases between the subject and the verb do not affect agreement**
 - *The basket of apples is on the table.*
9. **Titles of books, movies, or countries = Singular**
 - *The United States is a large country.*
10. **"There is/There are" – Verb agrees with what follows**
 - *There is a cat on the roof.*
 - *There are many stars in the sky.*

Part 1: Subject-Verb Agreement (50 Sentences)

Make sure the verb agrees with the subject in each of the following longer sentences:

1. The team of researchers has concluded that climate change is accelerating faster than expected.
2. Neither the manager nor the employees were aware of the upcoming policy changes.
3. My parents, along with my cousins, enjoy visiting the new art museum every summer.

4. The committee are planning to implement new guidelines regarding student behavior at the school.
5. The team of doctors have recommended that we take better care of our health to prevent chronic diseases.
6. Every one of the students in the classroom were excited to participate in the annual science fair.
7. The list of items you requested are being prepared by the staff and will be delivered shortly.
8. The teacher, along with her assistant, were preparing for the final examination.
9. Neither the teacher nor the students was ready for the surprise quiz on Monday.
10. The fleet of trucks have been waiting at the warehouse for over an hour to be loaded with goods.
11. The police was investigating the crime scene when they discovered new evidence.
12. The books on the shelf needs to be dusted before the library can be opened for the day.
13. The children, along with their parents, enjoy visiting the zoo every weekend.
14. The number of people who has signed up for the event is impressive, considering it was announced just yesterday.
15. The news about the concert being cancelled have disappointed many fans.
16. The cast of the play was rehearsing for weeks before the opening night.
17. A group of volunteers were helping to clean the beach during the weekend.
18. Neither the rain nor the wind were strong enough to cancel the outdoor event.
19. The weather forecast for the weekend are predicting clear skies and warm temperatures.
20. The school principal, along with several teachers, are attending a leadership conference in the city.
21. A series of meetings has been scheduled to discuss the upcoming changes in the organization.
22. The train conductor, along with the passengers, was waiting for the storm to pass before resuming the journey.
23. My father, along with his friends, enjoys playing chess on Sunday afternoons.
24. The government have promised to address the issue of pollution in the city as soon as possible.
25. The audience were cheering loudly when the band took the stage for the performance.
26. The players, along with the coach, was excited to finally participate in the championship.
27. A collection of rare stamps have been donated to the museum by a generous benefactor.
28. The noise from the construction site have been bothering the residents for weeks now.
29. The teacher and her students were eagerly waiting for the results of the annual competition.
30. The artwork in the gallery, despite being famous, were not getting much attention during the opening.
31. The fleet of ships are scheduled to depart from the harbor at 10 AM sharp.
32. Several of the participants in the race was not prepared for the sudden rainstorm.
33. The price of the new phone models has increased significantly since last year.
34. A number of students in my class has already finished the group project ahead of time.
35. The train, along with its passengers, were delayed for more than two hours due to the storm.
36. The staff at the hotel were busy preparing for the wedding reception when the guests began to arrive.
37. The actors in the play, despite their best efforts, was unable to impress the critics.
38. Neither the teacher nor the students were happy with the changes in the school schedule.
39. A number of people have already registered for the seminar on climate change and sustainability.
40. The workers at the factory was preparing the shipment for delivery when the power went out.

41. The concert tickets, along with backstage passes, were sold out within a few hours of going on sale.
42. The students, who had been working hard all semester, were relieved to finally finish their final exams.
43. The laptop I ordered online has arrived, but it is missing some important accessories.
44. The family, along with their pets, was excited to move into their new home.
45. The library bookshelves were organized by the volunteers who helped to sort them earlier this week.
46. A number of volunteers have gathered at the park to clean up after the community event.
47. The committee, despite having different opinions, was united in its decision about the project.
48. The head of the department and the managers were working late into the night on the new proposal.
49. The books and the notes from the previous semester need to be reviewed before the final exam.
50. A large group of tourists was gathered outside the museum, waiting for the gates to open.

✦ Part 2: Tense Practice (50 Sentences)

1. Present Simple

- **Structure: Subject + Base Verb (s/es for he/she/it)**
 - *She plays tennis every weekend.*

2. Present Continuous (Progressive)

- **Structure: Subject + am/is/are + Verb + ing**
 - *They are reading a book right now.*

3. Present Perfect

- **Structure: Subject + has/have + Past Participle**
 - *I have finished my homework.*

4. Present Perfect Continuous

- **Structure: Subject + has/have + been + Verb + ing**
 - *She has been studying for two hours.*

5. Past Simple

- **Structure: Subject + Past Verb**
 - *He watched the movie yesterday.*

6. Past Continuous (Progressive)

- **Structure: Subject + was/were + Verb + ing**
 - *They were playing football when it rained.*

7. Past Perfect

- **Structure: Subject + had + Past Participle**
 - *I had already left when she arrived.*

8. Past Perfect Continuous

- **Structure: Subject + had + been + Verb + ing**
 - *She had been working for hours before the break.*

9. Future Simple

- **Structure: Subject + will + Base Verb**
 - *They will arrive tomorrow.*

10. Future Continuous (Progressive)

- **Structure: Subject + will + be + Verb + ing**
 - *I will be studying at 8 PM.*

11. Future Perfect

- **Structure: Subject + will + have + Past Participle**

- *By next year, I will have completed my course.*

12. Future Perfect Continuous

- **Structure: Subject + will + have + been + Verb + ing**
 - *By 6 PM, I will have been working for 8 hours.*

Identify and use correct tenses in each sentence:

1. By the time we arrived at the airport, they **had been announcing** the boarding for over 15 minutes.
2. She **was working** on the assignment for two hours when her laptop suddenly shut down.
3. We **have studied** for the exam last night, but we still felt unprepared.
4. I **was waiting** at the bus stop when it suddenly started to rain heavily.
5. They **have completed** their presentation before the meeting started.
6. By the time the conference begins, we **will finish** the preparations for the event.
7. I **have been living** in this city since I was born, and now I am moving to another place.
8. They **will be completing** the project when I will be back from my vacation.
9. We **had been discussing** about the proposal before the manager walked into the room.
10. The students **have been practicing** for the performance for weeks when they finally went on stage.
11. The teacher **explains** the lesson when the bell rang.
12. He **had been trying** to fix the issue before they called the technician.
13. I **was writing** an email to my friend when the power went out.
14. She **is going** to the concert when I will arrive there tomorrow.
15. The team **had been discussing** the project before the sudden change of plans happened.
16. By the time the report is ready, I **had submitted** my research findings.
17. The workers **had completed** their shift by the time the storm began.
18. I **was studying** for my exam when my friend calls me to ask for help.
19. I **have met** my best friend when I was in high school.
20. He **will have finished** the book by next week, but he already read half of it last weekend.
21. We **were walking** to the park when we saw the announcement about the canceled event.
22. I **had been eating** dinner when my cousin had called me to go out.
23. The children **have been playing** in the garden for two hours, and it still looks like they are having fun.
24. She **was talking** to her sister about the new project when I entered the room.
25. They **were studying** in the library until midnight when the lights went off.
26. We **had been planning** for the party for weeks when we found out it was scheduled on the same day as the concert.
27. I **have been reading** this book when I finished it yesterday.
28. The manager **had been checking** the reports when she finally noticed the mistake in the figures.
29. We **were working** on the presentation when the client unexpectedly arrived at the office.
30. I **was watching** the movie when my phone rang.
31. By the time the movie finishes, we **had already left** the theater.
32. She **was traveling** around Europe for a year, but now she is back in the city.
33. I **had read** the article before I received the assignment.
34. They **are meeting** with the investors when the announcement was made.
35. The children **have been playing** outside for several hours when it started to get dark.
36. The scientists **had been working** on the cure for cancer for many years before they made their breakthrough.
37. By next month, we **will be working** on the next phase of the project.
38. I **was thinking** about going to the gym when I realized I had no time before my class.

39. They **were already reading** the book when they decided to go to the library to get a new one.
40. She **has learned** a lot from this experience, but she didn't understand some concepts at the time.
41. We **have been running** through the park when we saw the stray dog.
42. The students **had completed** their assignments before the class started.
43. I **had been waiting** for an hour when I finally decided to call them.
44. They **will have gone** to the party by the time we arrive.
45. The construction workers **will have finished** the building project by next year, but they are already behind schedule.
46. The children **had been playing** outside until their mother told them to come inside for dinner.
47. She **had told** me to wait for her, but I didn't realize she was already on her way.
48. We **have traveled** to several countries before we decided to settle down.
49. The artist **was painting** a beautiful landscape when the client requested changes to the design.
50. By the time we finish the report, they **will have completed** their analysis.

Section B: Letter & Diary

Formal Letter Writing Topics

Write any one formal letter in about 150–200 words. Use proper format and tone.

1. Write a formal letter to your school principal, explaining the difficulties faced by students due to the current school timetable. Discuss how certain subjects are overlapping, leading to stress and a lack of sufficient time for revision or extracurricular activities. Request a revision of the timetable to allow for better spacing of subjects and a more balanced workload.
2. Write a formal letter to the local municipal corporation addressing the deteriorating condition of public parks and green spaces in your neighbourhood. Mention specific issues such as broken benches, unkempt lawns, littering, and a lack of proper lighting. Suggest practical solutions for improving the maintenance of these spaces to benefit the community.
3. Write a formal letter to the scholarship committee of a university, applying for a scholarship to pursue higher education. In your letter, describe your academic achievements, extracurricular involvements, and the financial difficulties you are currently facing. Explain how this scholarship would help you continue your studies and contribute to your long-term career goals.
4. Write a formal letter to the education board proposing the introduction of a mental health awareness program in schools. Discuss the importance of mental health education, the increasing number of students facing mental health challenges, and how such a program can help reduce stigma and provide students with the tools to manage stress and mental well-being effectively.
5. Write a formal letter to the school principal requesting permission to organize a cultural exchange event. In your letter, outline the purpose of the event, the cultural benefits for students, and the educational value of exposing students to different traditions, languages, and arts. Provide details of how the event would be organized, the participants involved, and the expected outcomes.

Diary Entry Topics

Write a diary entry of 150–200 words. Be expressive and use personal reflections.

1. Write a diary entry reflecting on a day when you realized how important time management is. It could be after a hectic day where you felt overwhelmed or after missing a deadline. Describe the situation, how you felt, and what you learned about the need to plan your time more effectively moving forward.

2. Write a diary entry about an encounter with a stranger that left a lasting impression on you. Perhaps it was a brief conversation, an act of kindness, or an unexpected piece of advice that made you see things differently. Reflect on how it changed your perspective or how it continues to influence you.
3. Write a diary entry describing your experience preparing for a significant exam. Talk about the challenges you faced, how you managed stress, and any breakthroughs or moments of clarity you had while studying. Express your emotions during the process and how you felt after the exam.
4. Write a diary entry about a recent trip you took, whether it was a vacation, a study tour, or a visit to a new place. Reflect on how the trip transformed your perspective, opened your eyes to new cultures, or made you appreciate your life in a new way. Describe the people, the places, and the experiences that stood out to you.
5. Write a diary entry about a time when you took a risk or stepped out of your comfort zone. It could have been trying something new, standing up for yourself, or making a difficult decision. Reflect on the feelings you had before, during, and after the experience, and how it changed you or taught you something valuable.

Creative & Art-Integrated Activities: Assam Theme

Prepare creative project to integrate art and culture into your learning. You may use handmade drawings, printed pictures, or digital tools:

Find the topics as per Roll Numbers.

1. Traditional Clothing Comparison

- Project: Create detailed sketches or collages of traditional clothing from both Rajasthan and Assam. Compare the fabrics, designs, and colors used in garments like the bandhej saree of Rajasthan and the mekhela chadar of Assam.

2. Festival Celebrations

- Project: Design a poster that contrasts the major festivals of both states. For example, compare Diwali (Rajasthan) with Bihu (Assam), using symbols, colors, and images to reflect the cultural significance of each festival.

3. Architecture of Forts and Temples

- Project: Create a 3D collage or painting comparing the forts of Rajasthan (e.g., Amber Fort) and Assamese temples (e.g., Kamakhya Temple), highlighting architectural styles, motifs, and historical importance.

4. Folk Art Styles

- Project: Create a comparative drawing showcasing the Pattachitra art of Odisha, which influences Assam, and the Madhubani or Miniature paintings of Rajasthan. Include elements like intricate designs, themes, and mediums used.

5. Traditional Jewellery

- Project: Design two sets of jewellery – one inspired by Rajasthani jewellery (e.g., Kundan, Meenakari) and the other by Assamese jewelry (e.g., Filigree work, Gamkharu). Illustrate how each reflects cultural values.

6. Handicrafts Showcase

- Project: Create a collage or shadowbox comparing famous handicrafts like block printing from Rajasthan and muga silk weaving from Assam. Use actual fabric scraps, beads, or materials to highlight these crafts.

7. Natural Landscapes

- Project: Paint a split canvas with the contrasting landscapes of Rajasthan's Thar Desert and Assam's Brahmaputra River valley. Explore the colors, textures, and patterns to capture the essence of these unique landscapes.

8. Wildlife of Rajasthan and Assam

- Project: Illustrate the native wildlife in both states. For example, depict the tiger in Rajasthan's Ranthambhore National Park alongside the one-horned rhinoceros of Assam's Kaziranga National Park.

9. Cuisine and Culinary Culture

- Project: Create a mixed-media collage or a menu design showcasing the famous dishes from both states – like dal baati churma from Rajasthan and pitha from Assam. Use textures, colors, and ingredients to represent the dishes.

10. Architecture of Houses

- Project: Draw detailed representations of the traditional Rajasthani haveli and Assamese bamboo houses. Highlight differences in materials, design, and climate adaptation.

11. Traditional Dance Forms

- Project: Create a poster or digital art that contrasts the dance forms of Ghoomar from Rajasthan and Bihu dance from Assam. Use figures, costumes, and movements to depict the traditional performances.

12. Mythological Stories Through Art

- Project: Create two separate illustrations or comic strips, one depicting a mythological story from Rajasthan (e.g., the story of Padmini) and another from Assam (e.g., the legend of Kamakhya). Focus on the elements of symbolism and story arcs.

13. River and Water Significance

- Project: Create a watercolor or acrylic painting depicting the Brahmaputra River in Assam and the Chambal River in Rajasthan. Compare how water bodies shape both cultures and landscapes.

14. Musical Instruments

- Project: Draw or make a collage of the traditional musical instruments from both states, such as the Rajasthani sarangi and the Assamese dhol. Illustrate their cultural roles and uses.

15. History of Kings and Rulers

- Project: Create a timeline or portrait series showcasing the rulers of both regions, such as Maharana Pratap of Rajasthan and Rudra Singha of Assam. Use artistic styles of the time to depict them.

16. Textile Weaving Techniques

- Project: Show how Rajasthani block prints and Assamese silk weaving are created. Use actual fabric samples or drawings to compare the intricate techniques used in both states.

17. Rajasthani and Assamese Puppetry

- Project: Create a puppet (or draw a series) comparing the Kathputli (Rajasthani) with the Bhatialikha (Assamese). Discuss their cultural significance and the materials used in crafting.

18. Traditional Games

- Project: Illustrate or design board games traditionally played in both regions, such as Chaupar from Rajasthan and Pallanguzhi from Assam. Provide a brief history of the games.

19. Ancient Scripts

- Project: Create a comparative chart or artistic representation of Rajasthani scripts (e.g., Mahajani script) and Assamese scripts (e.g., Bengali-Assamese script). Explore the historical development and usage of both.

20. The Role of Elephants

- Project: Draw or create a mixed-media art piece comparing the role of elephants in Rajasthani culture (e.g., in royal processions) and Assamese culture (e.g., in tea plantations).

21. Role of Women in Society

- Project: Illustrate or create an artwork representing the role of women in Rajasthani society (e.g., ghunghat, rural life) and Assamese society (e.g., empowered women in tea gardens). Highlight cultural differences.
22. Historical Trade Routes
- Project: Design a map or infographic comparing the trade routes of Rajasthan (e.g., Silk Road) and the tea trade routes of Assam. Include important landmarks and historical facts.
23. Ethnic Costume and Textile Comparison
- Project: Draw or stitch fabric samples that reflect the textiles and costumes from Rajasthan and Assam, such as Bandhani from Rajasthan and Muga silk from Assam.
24. Rajasthani and Assamese Calligraphy
- Project: Create calligraphy art comparing the Rajasthani script and Assamese calligraphy. Experiment with different fonts, colors, and designs.
25. The Role of Camels and Buffaloes
- Project: Draw or create a 3D sculpture comparing the camel (used in Rajasthan) and the buffalo (important in Assam for dairy farming). Explore their roles in the respective cultures.
26. Architecture of Palaces and Temples
- Project: Compare the palaces of Rajasthan (e.g., City Palace of Jaipur) with the temples of Assam (e.g., Kamakhya Temple) through architectural drawings or 3D models.
27. Tea Culture and Traditions
- Project: Create a visual comparison between Rajasthani tea culture (e.g., masala chai) and Assamese tea culture (e.g., Assam tea). Use mixed media to represent tea cups, plantations, and the history behind each.
28. Comparing the Weather
- Project: Create a split art piece comparing the desert climate of Rajasthan and the rainforest climate of Assam. Use different colors, textures, and elements to reflect the contrasting weather conditions.
29. Wildlife Protection and Conservation
- Project: Design an infographic or artwork comparing the conservation efforts in Rajasthan (e.g., Sariska Tiger Reserve) and Assam (e.g., Kaziranga National Park). Highlight wildlife diversity.
30. Symbols of Royalty
- Project: Create a detailed drawing or painting comparing the royal insignia of Rajasthan (e.g., Maharana Pratap's sword) and Assamese royal symbols (e.g., Ahom dynasty seals).
31. Importance of Rivers
- Project: Paint or create a digital artwork comparing the importance of the Brahmaputra River in Assam with the Chambal River in Rajasthan. Explore their historical, cultural, and economic significance.
32. Cultural Significance of Masks
- Project: Design traditional Rajasthani masks used in dance and Assamese masks from Bihu festivals. Create a mixed-media piece that highlights their cultural meanings.
33. Cultural Symbols in Architecture
- Project: Create a drawing of a Rajasthani palace and an Assamese temple, highlighting how symbols, like motifs, deities, and architecture, are used in the construction and decoration.
34. Rivers and Waterways
- Project: Paint two contrasting scenes of life along Assam's Brahmaputra River and Rajasthan's desert water sources, comparing how water impacts lifestyle and culture in each state.
35. Regional Folk Tales

- Project: Illustrate a folk tale from Rajasthan (e.g., Padmini of Chittor) and one from Assam (e.g., the story of Bihu). Use color, symbols, and characters to bring the tales to life.

36. Color Symbolism in Rajasthan and Assam

- Project: Create a color wheel or chart showcasing how different colors are symbolically used in Rajasthani culture (e.g., orange and red for joy and power) vs. Assamese culture (e.g., green and gold for fertility and wealth).

Subject: Hindi

प्रश्न-1 निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर दिए गए प्रश्नों के उत्तर दीजिए।

आदमी की पहचान उसकी भाषा से होती है और भाषा संस्कार से बनती है। जिसके जैसे संस्कार होंगे, वैसी उसकी भाषा होगी। जब कोई आदमी भाषा बोलता है, तो साथ में उसके संस्कार भी बोलते हैं। यही कारण है कि भाषा शिक्षक का दायित्व बहुत गुरुतर और चुनौतीपूर्ण है। परंपरागत रूप में शिक्षक की भूमिका इन तीन कौशलों बोलना, पढ़ना और लिखना तक सीमित कर दी गई है। केवल यांत्रिक कौशल किसी जीती-जागती भाषा का उदाहरण नहीं हो सकते हैं। सोचना और महसूस करना दो ऐसे कारक हैं, जिनमें भाषा सही आकार पाती है। इनके बिना भाषा, भाषा नहीं है, इनके बिना भाषा संस्कार नहीं बन सकती, इनके बिना भाषा युगों-युगों का लंबा सफर तय नहीं कर सकती, इनके बिना कोई भाषा किसी देश या समाज की धड़कन नहीं बन सकती। केवल संप्रेषण ही भाषा नहीं है। दर्द और मुस्कान के बिना कोई भाषा जीवंत नहीं हो सकती। भाषा हमारे समाज के निर्माण, विकास, अस्मिता, सामाजिक व सांस्कृतिक पहचान का भी महत्वपूर्ण साधन है। भाषा के बिना मनुष्य पूर्ण नहीं है। भाषा में ही हमारे भाव राज्य, संस्कार, प्रांतीयता झलकती है। इस झलक का संबंध व्यक्ति की मानवीय संवेदना और मानसिकता से भी होता है। जिस व्यक्ति के जीवन का उद्देश्य और मानसिकता जिस स्तर की होगी, उसकी भाषा के शब्द और मुख्यार्थ भी उसी स्तर के होंगे। साहित्यकार ऐसी भाषा को आधार बनाते हैं, जो उनके पाठकों एवं श्रोताओं की संवेदना के साथ एकाकार करने में समर्थ हो।

(1) आदमी की पहचान उसकी भाषा से होती है, क्योंकि-

- (A) मनुष्य की पूर्णता भाषा द्वारा ही संभव है।
- (B) व्यक्ति के मनोभाव भाषा से ही व्यक्त होते हैं।
- (C) भाषा का प्रचार और विकास कोई रोक नहीं सकता।
- (D) दर्द और मुस्कान के बिना भाषा जीवित नहीं हो सकती।

(2) निम्नलिखित कथन (A) तथा कारण (R) को ध्यानपूर्वक पढ़िए। उसके बाद दिए गए विकल्पों में से कोई एक सही विकल्प चुनकर लिखिए।

कथन (A) जब कोई आदमी बोलता है, तो साथ में उसके संस्कार भी बोलते हैं।

कारण (R) भाषा शिक्षक का दायित्व बहुत चुनौतीपूर्ण होता है, क्योंकि उसे कौशलों का विकास करना होता है।

- (A) कथन (A) तथा कारण (R) दोनों गलत हैं।
- (B) कथन (A) गलत है, लेकिन कारण (R) सही है।
- (C) कारण (A) सही है लेकिन कारण (R) उसकी गलत व्याख्या करता है।
- (D) कथन (A) तथा कारण (R) दोनों सही हैं तथा कारण (R) कथन (A) को सही व्याख्या करता है।

(3) गद्यांश में साहित्यकार द्वारा किए गए कार्य का उल्लेख इनमें से कौन-से विकल्प से ज्ञात होता है-

- (A) साहित्य समाज का दर्पण है।
- (B) साहित्यकार साहित्य सृजन में व्यस्त रहता है।
- (C) साहित्यकार सामाजिक व सांस्कृतिक पहचान बनाता है।
- (D) साहित्यकार जन सामान्य की अस्मिता का परिचायक होता है।

(4) भाषा के महत्त्व को अपने शब्दों में लिखिए।

(5) भाषा के तीन कौशलों का नाम बताते हुए उनकी भूमिका स्पष्ट कीजिए।

प्रश्न-3 निम्नलिखित वाक्यों के रचना की दृष्टि से भेद लिखिए।

1. माँ ने कहा कि शाम को जल्दी लौट आना।
2. जब मैं घर पहुँचा तब वर्षा शुरू हो चुकी थी।
3. जैसे ही बादल घिरे वैसे ही बिजली चमकने लगी।
4. जब-जब धरती पर अधर्म बढ़ा है, तब-तब ईश्वर धरती पर अवतरित हुए हैं।
5. जहाँ-जहाँ सिंचाई की व्यवस्था है, वहाँ-वहाँ फसलें खूब पैदा होती हैं।
6. आप नाटक देखने जाएँगे या सिनेमा।
7. मरीज फल खा लेगा अथवा खिचड़ी से काम चलेगा।
8. मदन को बस नहीं मिली इसलिए वह समय पर घर न आ सका।
9. वह दिन भर काम करता रहा परंतु पूरा न हो सका।
10. पोत नष्ट हो गया, पर यात्रियों को बचा लिया गया।
11. इस समय सर्दी है, इसलिए कोट पहन लो।
12. मैं उसे चुप रहने को कहता रहा, पर उसने एक नहीं सुनी।
13. काम पूरा कर डालो, नहीं तो जुर्माना होगा।
14. वह विद्वान् बनना चाहता था, इसलिए बड़े-बड़े ग्रंथ पढ़ता था।
15. वक्त निकल जाता है, पर बात याद रह जाती है।
16. यदि परिश्रम करोगे तो, उत्तीर्ण हो जाओगे।
17. मैं जानता हूँ कि तुम्हारे अक्षर अच्छे नहीं बनते।
18. यह वही बच्चा है जिसको बैल ने सींग मारा था।
19. जो गरीबों की सहायता करते हैं वे धर्मात्मा होते हैं।
20. क्योंकि वह संतुष्ट था इसलिए उसने कभी शिकायत नहीं की।
21. जब छह बजे तब लौट आना।
22. मुझे यह अच्छा नहीं लगता कि आहिस्ता बोला जाए।
23. यह सब तब हुआ जब मैं अनुपस्थिति था।
24. जब मैं मरूँ तो मेरा संस्कार गंगाघाट पर किया जाए।
25. यद्यपि इतनी गर्मी है तथापि वह भट्टी के पास काम करता है।
26. जब तक मैं न आऊँ तब तक यहीं बैठे रहना।
27. कृपया बात दें कि गाड़ी किस समय आती है।
28. जब अतिथि विदा हुए तब हम सोने चले गए।
29. जल्दी तैयार हो जाओ, नहीं तो बस चली जाएगी।
30. वह घर पर मिलेगा, तो मैं अवश्य जा मिलूँगा।

प्रश्न 3. निम्नलिखित वाक्यों निर्देशानुसार परिवर्तित कीजिए।

- | | |
|--|-----------------|
| 1. वे कोच की सीख के अनुसार ही खेलते हैं। | (मिश्र वाक्य) |
| 2. मोहन हिंदी पढ़ने शास्त्री जी के यहाँ गया है। | (संयुक्त वाक्य) |
| 3. मेहनत करने वाले विद्यार्थी, वह अवश्य सफल होते हैं। | (मिश्र वाक्य) |
| 4. घायल सैनिक उठा। शास्त्र से लड़ने लगा। | (संयुक्त वाक्य) |
| 5. वहाँ एक गाँव था। वह गाँव छोटा-सा था। उसके चारों ओर जंगल थे। उस गाँव में आदिवासियों के बीस परिवार रहते थे। | (संयुक्त वाक्य) |
| 6. चाय तैयार हुई और उसने प्यालो में भर दी। | (मिश्र वाक्य) |
| 7. हरिहर काका ने ठाकुरबाड़ी के महल, पुजारी और साधुओं की काली करतूतों का पर्दाफाश करना शुरू किया। | (मिश्र वाक्य) |
| 8. वह छः मंजिली इमारत थी जिस पर एक वर्ण कुटी बनी थी। | (सरल वाक्य) |

9. जो रुपए दादा भेजते हैं उसे हम 20- 22 तारीख तक खर्च कर डालते हैं। (सरल वाक्य)
10. वह हरदम किताब खोलकर अध्ययन करते रहते थे। (संयुक्तवाक्य)
11. मैं सफल हुआ और कक्षा में प्रथम स्थान पर आया। (सरलवाक्य)
12. एक बार बिल्ली ने उचक्कर दो में से एक अंडा तोड़ दिया। (मिश्र वाक्य)
13. बरसात होने पर सूरज छिप जाता है। (मिश्र वाक्य)
14. वह छः मंजिल की इमारत थी जिस पर एक पूर्ण कुटी बनी थी। (सरल वाक्य)
15. ततारा बहुत संवेदनशील था। वह समूचे द्वीपवासियों की सेवा करना अपना परम कर्तव्य समझता था। (संयुक्त वाक्य)
16. एक लोक कथा है जो आज भी दोहराई जाती है। (सरल वाक्य)
17. वह समझदार था एन एन निकोबार भारी उसे प्रेम करते थे। (मिश्र वाक्य)
18. चींटियों ने उनके लिए ईश्वर से दुआ की ओर सुलेमान अपनी मंजिल की ओर बढ़ गए। (मिश्र वाक्य)

प्रश्न- 5 निम्नलिखित विषयों पर दिए गए संकेत बिंदुओं के आधार पर लगभग 100 से 120 शब्दों में अनुच्छेद लिखिए।

(क) 'जैसी संगति बैठी, तैसी ही फल दीन'

संकेत बिंदु : 1. संगति का महत्त्व 2. संगति का सकारात्मक प्रभाव 3. संगति का नकारात्मक प्रभाव

(ख) 'नई शिक्षा नीति के प्रमुख लाभ'

संकेत बिंदु: 1. नई शिक्षा नीति 2020 का संक्षिप्त परिचय और इसकी आवश्यकता

2. समग्र शिक्षा पर बल: (ज्ञान के साथ नैतिकता, सर्वांगीण विकास)
3. मल्टीपल एंट्री और एग्जिट सुविधा: (पढ़ाई के बीच में डिग्री/डिप्लोमा)
4. राष्ट्रीय शिक्षा ढांचा: (समान गुणवत्ता की शिक्षा पूरे देश में)
5. मूल भाषा में शिक्षा: (प्राथमिक स्तर पर मातृभाषा/स्थानीय भाषा में पढ़ाई को बढ़ावा)
6. तकनीकी और व्यावसायिक शिक्षा का विस्तार: (डिजिटल लर्निंग और कौशल विकास कार्यक्रमों पर ध्यान)
7. नई शिक्षा नीति से अपेक्षित सकारात्मक बदलाव और भविष्य की संभावनाएँ

प्रश्न-8. (क) आपका विद्यालय ग्रीष्मकालीन अवकाश में गंगानगर से मंसूरी की यात्रा का आयोजन कर रहा है। इस यात्रा से सम्बंधित 70 से 80 शब्दों में सूचना लिखिए।

(ख) विद्यालय पत्रिका के लिए रचनाएँ आमंत्रित करते हुए 70 से 80 शब्दों में एक सूचना लिखिए।

प्रश्न-9. (क) आज़ाद कोचिंग सेंटर द्वारा प्रतियोगियों को आकर्षित करने के लिए एक विज्ञापन 70 से 80 शब्दों में तैयार कीजिए।

(ख) राजस्थान सरकार की ओर से राजस्थान को हरा-भरा एवं स्वच्छ बनाने हेतु 70 से 80 शब्दों में एक विज्ञापन तैयार कीजिए।

(ग) 'बालिका शिक्षा पर' 70 से 80 शब्दों में एक विज्ञापन तैयार कीजिए।

प्रश्न 10. (क) अंग्रेज़ी और गणित का पाठ्यक्रम पूरा नहीं हो पाया है। पाठ्यक्रम पूरा न होने के कारणों का उल्लेख करते हुए अंग्रेज़ी और गणित विषयों की अतिरिक्त कक्षाएँ आयोजित करवाने हेतु अपने विद्यालय के प्रधानाचार्य को प्रार्थना-पत्र लिखिए।

(ख) आप 29/5 संस्कार अपार्टमेंट, सेक्टर-14 रोहिणी, दिल्ली के निवासी हैं। आप चाहते हैं कि लोग दीपावली में पटाखों का कम से कम प्रयोग करें। पटाखों से होने वाली हानियों से अवगत कराते हुए नवभारत टाइम्स के संपादक को पत्र लिखिए।

(ग) जमाखोरी का सबसे बड़ा नुकसान यह है कि इससे वस्तुओं के मूल्य आसमान छूने लगते हैं। जमाखोरी की दुष्प्रवृत्ति पर चिंता प्रकट करते हुए किसी समाचार पत्र के संपादक को पत्र लिखिए।

प्रश्न 11. (क) आपको चेक बुक की आवश्यकता है। नई चेक बुक प्राप्त करने के लिए स्टेट बैंक मालवीय नगर, दिल्ली शाखा के प्रबंधक को statbank123@gmail.com पर ई-मेल लिखिए।

- (ख) अपने क्षेत्र में एक पार्क विकसित करने के लिए नगर निगम अधिकारी को Nagarnigamganganagar00@gmail.com पर ई-मेल लिखिए।
- (ग) आधार कार्ड न मिलने की शिकायत करते हुए सम्बंधित अधिकारी को rajasthan123@gmail.com पर ई-मेल लिखिए।

प्रश्न-12.(क) 'मेहनत की कमाई' विषय पर 100 शब्दों में लघुकथा लिखिए।

(ख) दिए गए संकेत बिन्दुओं के आधार पर 100 शब्दों में लघुकथा लिखिए।

(बारिश का अभाव, एक भेड़िया, चरागाह में भेड़ों का झुंड, सारा पानी भी पी जाना, भेड़ें वहाँ से भाग गईं)

(ग) 'ममता की छाँव' विषय पर 100 शब्दों में लघुकथा लिखिए।

प्रश्न 13. राजस्थान के नाटक एवम् साहित्य का आसाम के नाटकों एवम् साहित्य के साथ तुलनात्मक अध्ययन करते हुए पी.पी.टी. बनाइए।

2. आपके विद्यालय में वृक्षारोपण का कार्यक्रम होना है। नोटिस बोर्ड पर लगाने के लिए इस विषय से संबंधित सूचना तैयार कीजिए।

अब स विद्यालय, क ख ग नगर

सूचना

14 अप्रैल 2021

वृक्षारोपण

हमारे विद्यालय के ईको क्लब द्वारा आगामी सोमवार को प्रातः 9 बजे वृक्षारोपण का कार्यक्रम आयोजित किया जा रहा है जिसके माध्यम से हम पर्यावरण को बचाने में अपना-अपना योगदान देंगे। सभी छात्र-छात्राओं से अनुरोध है कि अपनी धरती को बचाने तथा पर्यावरण को स्वच्छ करने में अपना योगदान देने हेतु कार्यक्रम में भाग लें।

दिनांक : 19/04/2021

समय : प्रातः 9:00 बजे

स्थान : विद्यालय का बड़ा मैदान

क ख ग

सचिव

ईको क्लब

..... संस्था का नाम

सूचना

दिनांक :

..... सूचना का विषय

सूचना को लिखें

सूचना देने वाले व्यक्ति के हस्ताक्षर, उसका नाम

सूचना देने वाले व्यक्ति का पद

चेक बुक खो जाने की सूचना देते हुए अपने बैंक के प्रबंधक को ई-मेल भेजिए

दिनांक :

प्रेषक का ई-मेल : abc.hij@gmail.com

प्राप्त कर्ता / स्वीकर्ता का ई-मेल : manager123@gmail.com

प्रतिलिपि (CC): suja@gmail.com

गुप्तलिपि (bcc): regionalmanager@abkbank.com

विषय : चेक बुक खो जाने की सूचना हेतु

महोदय / महोदया,

दिन की शुभकामनाएँ !

सविनय निवेदन है कि मेरा आपके बैंक में बचत खाता है। मेरे बचत खाते का नंबर 38534207 है। मैंने पिछले महीने 25 पन्नों की एक चेक बुक आपसे ली थी जो कहीं खो गई है। अतः आप से अनुरोध है कि उस चेक बुक का भुगतान तुरंत रोक दिया जाए और मुझे एक नई चेक बुक भी भिजवा देने की कृपा करें।

आप की अति कृपा होगी

धन्यवाद

भवदीय

क ख ग(प्रेषक का नाम)

Subject: Science
Art Integration Project Topics

<u>Roll No.</u>	<u>Topic No. & Name</u>
01 to 04	01 (Interactive Quiz on Balancing Equations)
05 to 08	02 (Animation of a Chemical Reaction)
09 to 12	03 (Reflective Photography Project)
13 to 16	04 (Acid-Base Tie-Dye Experiment)
17 to 20	05 (Chemical Reaction Sculptures)
21 to 24	06 (Interactive Simulation of Reflection)
25 to 28	07 (Music Integrated Activity)
29 to 32	08 (Interactive Simulation of Chemical Reactions)
33 to 36	09 (Game or Quiz)

- 1. Interactive Quiz on Balancing Equations:** Develop a quiz using online platforms like Kahoot! or Quizizz to test your understanding of balancing chemical equations. Include questions with different reaction types (combination, decomposition, etc.) for a well-rounded assessment.
- 2. Animation of a Chemical Reaction:** Utilize animation software like Blender or Scratch to create a short animation depicting the process of a chemical reaction. Animate the movement of particles (reactants and products) and highlight the changes in their arrangements.
- 3. Reflective Photography Project:** Capture a series of photographs that showcase the phenomenon of reflection in everyday life (e.g., reflections in water, mirrors, glass windows). Play with angles and perspectives to create visually interesting compositions.
- 4. Acid-Base Tie-Dye Experiment:** Explore the concept of pH indicators through a tie-dye experiment. Use different solutions (acidic, basic, neutral) to create patterns on fabric and observe the color changes.
- 5. Chemical Reaction Sculptures:** Create a 3D sculpture that represents a chemical reaction. Use different materials like clay or wire to depict the reactants and products involved.
- 6. Interactive Simulation of Reflection:** Explore online simulations or apps to investigate different aspects of reflection, like the formation of virtual images and the behavior of light rays at various angles.
- 7. Music Integrated Activity:** Create a sing-song method for the reactivity series of various metals.
- 8. Interactive Simulation of Chemical Reactions:** Explore online simulations like those on [PhET Interactive Simulations](#) to visualize the process of chemical reactions and balancing equations.
- 9. Game or Quiz -** Design a *board game or quiz* that tests your classmates' knowledge of **Light-Reflection and Refraction**, including their characteristics of image formed by mirrors, ray diagrams, uses of mirrors.

Creative

- 10. Prepare a dictionary** of minimum 40 words, including the scientific terms and difficult words from the chapter '**Chemical reactions and equations**', '**Acids, Bases and Salts**'.
- 11. pH Detectives:** Create your own homemade pH indicator using red cabbage juice. Test common household substances (like lemon juice, soap solution, and baking soda solution) to determine their pH level. Design a color chart to represent the pH scale and use it to classify your test subjects as acidic, basic, or neutral.
- 12. The Acid-Base Challenge:** Conduct a neutralization reaction. For example, mix a measured amount of vinegar (acid) with baking soda (base) and observe the reaction. Track the changes

in temperature and gas evolution. Calculate the amount of base needed to neutralize a specific amount of acid.

- 13. The Salty Story:** Research the different types of salts and their importance in everyday life. Create an informative infographic or presentation detailing the sources, uses, and potential health effects of various salts (e.g., table salt, sodium bicarbonate, calcium chloride).

Riddles

1. A few friends are enjoying their sea voyage in a boat full of apples. On the way, they feel hungry and decide to eat the apples. Together, they eat two dozen apples. When they have eaten the apples, will there be any change in the water level?
2. How can you throw a ball as hard as you can and have it come back to you even if it does not hit anything, there is nothing attached to it and no one else catches and throws it?
3. Many have heard it, but nobody has ever seen it. It will not speak until spoken to. What is it?
4. What is green but not a leaf: copies others but not a monkey? What sleeps through the day and cries through the night? The more it cries, the more it creates light.

Chemistry

Reasoning Questions

1. Why do we need to balance chemical equations?
2. What would happen if we don't balance chemical equations?
3. Why is it important to identify the type of chemical reaction?
4. How can you determine if a chemical reaction is exothermic or endothermic?
5. What is the significance of oxidation numbers in chemical reactions?
6. Why does a chemical reaction occur? Explain with an example.
7. How can you identify if a chemical reaction has taken place? Give examples.
8. What is the role of catalysts in chemical reactions? Provide an example.
9. Why do some chemical reactions require heat or light to proceed? Explain.
10. How does the concentration of reactants affect the rate of a chemical reaction?

Assertion-Reason Questions

1. Assertion: Rusting of iron is a chemical reaction.
Reason: Rusting of iron involves a change in color and formation of a new substance.
2. Assertion: Burning of magnesium ribbon is an exothermic reaction.
Reason: Burning of magnesium ribbon releases heat and light energy.

Critical Thinking Questions

1. A substance X reacts with oxygen to form a compound Y. Identify X and Y if the reaction is highly exothermic.
2. A metal M reacts with dilute hydrochloric acid to form a salt and hydrogen gas. Identify M if the reaction is highly reactive.
3. A metal 'M' reacts with oxygen to form a compound 'N'. If 'N' is soluble in water, identify 'M' and 'N' and write the balanced chemical equation.
4. A substance 'X' is used as a preservative in pickles. When 'X' reacts with sodium hydroxide, it forms a salt and water. Identify 'X' and write the balanced chemical equation.
5. A chemical reaction occurs between two substances, 'A' and 'B', to form a product 'C'. If 'C' is a gas and the reaction is reversible, identify 'A' and 'B' and write the balanced chemical equation.
6. A metal 'P' reacts with dilute hydrochloric acid to form a salt and hydrogen gas. If the

- reaction is highly reactive, identify 'P' and write the balanced chemical equation.
7. A substance 'Y' reacts with oxygen to form a compound 'Z'. If 'Z' is a major contributor to acid rain, identify 'Y' and 'Z' and write the balanced chemical equation.

Physics

1. Define the following terms:

- Principal focus of a concave mirror and a convex mirror
 - Centre of curvature
 - Radius of curvature
 - Magnification of spherical mirror
2. Draw ray diagrams for a concave mirror and a convex mirror for all possible positions of objects.

Critical Thinking Questions

1. A concave mirror is placed facing the sun. Where would you place a paper to burn it using the mirror? Explain your reasoning.
2. Why are convex mirrors used as rear-view mirrors in vehicles? Explain the advantages.
3. An object is placed between the focal point and the pole of a concave mirror. Describe the nature, position, and size of the image formed.
4. What happens to the image formed by a convex mirror when the object is moved closer to the mirror? Explain.
5. A dentist uses a concave mirror to examine a patient's teeth. Why is a concave mirror used, and what type of image is formed?
6. What would happen if a concave mirror is used as a rear-view mirror in a vehicle? Explain the advantages and disadvantages.
7. A mirror forms a virtual, erect, and diminished image of an object. Identify the type of mirror and explain its characteristics.

Scenario-Based Questions

1. A student is using a concave mirror to focus sunlight onto a small area. What would happen if they moved the mirror slightly away from the area? Explain.
2. An object is placed in front of a convex mirror. Describe how the image would change if the object were moved further away from the mirror.

Problem-Solving Questions

1. An object is placed 20 cm in front of a concave mirror with a focal length of 15 cm. Determine the position, nature, and size of the image formed.
2. A convex mirror has a focal length of 10 cm. An object is placed 20 cm in front of the mirror. Determine the position and nature of the image formed.

Analytical Questions

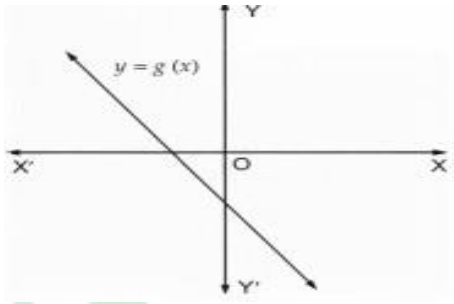
1. Compare and contrast the images formed by concave and convex mirrors.
2. How does the focal length of a mirror affect the image formed? Explain with examples.

Subject: Mathematics

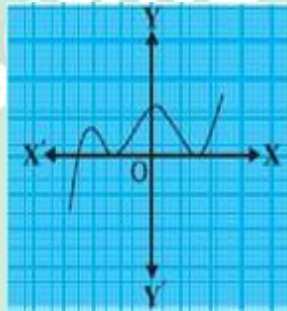
1. The zeros of the polynomial $x^2 - 2x - 3$ are
(a) - 3, 1 (b) 3, - 1 (c) 3, 1 (d) - 3, - 1
2. The sum and the product of the zeros of a quadratic polynomial are 3 and - 10 respectively. The quadratic polynomial is

- (a) $x^2 - 3x + 10$ (b) $x^2 - 3x - 10$ (c) $x^2 + 3x - 10$ (d) $x^2 + 3x + 10$
3. The zeros of the quadratic polynomial $x^2 + 88x + 125$ are
(a) both negative (b) both positive (c) both equal (d) one positive and one negative
4. If α and β are the zeroes of the polynomial $2x^2 + 5x + 1$, then the value of $\alpha + \beta + \alpha\beta$ is
(a) - 2 (b) 3 (c) - 1 (d) 1
5. If α and β are the zeros of $2x^2 + 5x - 9$ then the value of $\alpha\beta$ is
(a) $-\frac{9}{2}$ (b) $-\frac{5}{2}$ (c) $\frac{9}{2}$ (d) $\frac{5}{2}$
6. The number polynomials having zeroes as - 2 and 5 is
(a) 1 (b) 2 (c) 3 (d) more than 3
7. If one of the zeroes of the quadratic polynomial $14x^2 - 42k^2x - 9$ is negative of the other, then the value of k is
(a) 3 (b) 0 (c) 1 (d) 2
8. A quadratic equation $ax^2 + bx + c = 0$, has coincident roots, if
(a) $b^2 - ac = 0$ (b) $b^2 - 4ac$ (c) $b^2 - 4ac$ (d) $b^2 - 4ac = 0$
9. The roots of the equation $2x^2 - 6x + 3 = 0$ are
(a) real, unequal and irrational (b) real and equal
(c) real, unequal and rational (d) imaginary
10. If the product of the roots of the equation $x^2 - 3x + k = 10$ is - 2 then the value of k is
(a) - 8 (b) 12 (c) - 2 (d) 8
11. The product of two successive integral multiples of 5 is 1050. Then the numbers are
(a) 25 and 35 (b) 25 and 30 (c) 30 and 35 (d) 35 and 40
12. Which of the following has no real root?
(a) $x^2 - 5x + 3\sqrt{2} = 0$ (b) $x^2 + 4x - 3\sqrt{2} = 0$
(c) $x^2 - 4x - 3\sqrt{2} = 0$ (d) $x^2 - 4x + 3\sqrt{2} = 0$
13. The solution to a pair of linear equations is the point of intersection of their:
(a) Graphs (b) Parallel lines
(c) Perpendicular lines (d) None of the above
14. If the lines represented by two linear equations are parallel, how many solutions do they have?
(a) No solution (b) One solution
(c) Infinitely many solutions (d) Cannot be determined
15. The system of equations: $2x - 3y = 7$ and $4x - 6y = 14$ has:
(a) A unique solution (b) No solution
(c) Infinitely many solutions (d) None of the above
16. The solution to the equations $3x - 5y = 12$ and $6x - 10y = 24$ is:
(a) (3, 1) (b) (4, 0) (c) (2, 2) (d) (5, -1)
17. Two lines are perpendicular if the product of their slopes is:
(a) -1 (b) 0 (c) 1 (d) Undefined
18. If a pair of linear equations has no solution, the lines are:
(a) Intersecting (b) Coincident (c) Parallel (d) None of the above
19. The solution of the pair of equations $2x + 3y = 8$ and $4x + 6y = 16$ is:
(a) (2, 2) (b) (1, 2) (c) (2, 1) (d) (3, 2)
20. In a pair of linear equations, if the lines are coincident, they have:
(a) No solution (b) Infinite solutions
(c) One solution (d) Two solutions

21. Identify that the graph corresponds to a linear polynomial or a quadratic polynomial?



22. For a polynomial $p(x)$, the graph of $y = p(x)$ is given below. Find the number of zeroes of $p(x)$.



23. If the sum of the zeros of the quadratic polynomial $f(t) = kt^2 + 2t + 3k$ is equal to their product, find the value of k .

24. If the product of zeros of the quadratic polynomial $f(x) = x^2 - 4x + k$ is 3, find the value of k .

25. Write a quadratic polynomial, the sum and product of whose zeroes are 3 and -2.

26. A teacher after teaching the chapter polynomial in class 10th wrote the sum and product of zeros respectively on the blackboard to test the skill grasped by his students. Find out the Polynomials that the teacher has in his mind.

1. 0 and $\sqrt{2}$
2. $2 + \sqrt{3}$ and $2 - \sqrt{3}$
3. $2\sqrt{5}$ and $-\sqrt{5}$

27. If α and β are the zeroes of the quadratic polynomial $x^2 - 5x + 6$, find the value of $\alpha^2 + \beta^2 - \alpha\beta$.

28. If α and β are the zeros of the quadratic polynomial $f(x) = ax^2 + bx + c$, then evaluate: $1/a\alpha + b + 1/a\beta + b$

29. Show that the polynomial $f(x) = x^4 + 4x^2 + 6$ has no real zero.

30. Find the zeroes of the polynomial $5t^2 + 12t + 7$ by factorization method and verify the relation between the zero and the coefficient of the polynomial.

31. Find the quadratic polynomial, sum and product of whose zeroes are -1 and -20 respectively. Also find the zeroes of the polynomial so obtained.

32. If α and β are the zeros of the polynomial $f(x) = x^2 - 5x + k$ such that $\alpha - \beta = 1$, find the value of k .

33. If α and β are zeroes of the quadratic polynomial $4x^2 + 4x + 1$, then form a quadratic polynomial whose zeroes are 2α and 2β .

34. If α and β are the zeros of the quadratic polynomial $f(x) = ax^2 + bx + c$, then evaluate: $a\left(+\frac{\alpha^2}{\beta} + \frac{\beta^2}{\alpha}\right) + b\left(\frac{\alpha}{\beta} + \frac{\beta}{\alpha}\right)$

35. If β and α are zeroes of the polynomial $(x^2 + \alpha)x^2 + 61x + 6\alpha$. Find the values of β and α

DIRECTION: In given questions a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
- (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A)
- (c) Assertion (A) is true but reason (R) is false.
- (d) Assertion (A) is false but reason (R) is true.
36. **Assertion (A):** For no value of n , where n is a natural number, the number 6^n ends with zero.
Reason (R): For a number to end with digit zero, its prime factors should have 2 and 5.
37. **Assertion (A):** The HCF of two numbers is 16 and their product is 3072. Then their LCM = 162.
Reason (R): If a, b are two positive integers, then $\text{HCF}(a, b) \times \text{LCM}(a, b) = a \times b$
38. **Assertion (A):** $\sqrt{7}$ is an irrational number.
Reason (R): A square root of a prime number is always an irrational number.
40. **Assertion (A):** $3x^2 - 6x + 3 = 0$ has repeated roots.
Reason (R): The quadratic equation $ax^2 + bx + c = 0$ have repeated roots if discriminant $D > 0$.
41. **Assertion (A):** For all real values of c , the pair of equation $x - 2y = 8$ and $5x - 10y = c$ have a unique solution.
Reason (R): Two lines are given to be parallel. The equation of one of the lines is $4x + 3y = 14$, $12x + 9y = 5$
42. **Assertion (A):** A line drawn parallel to any one side of a triangle intersects the other two sides proportionally.
Reason (R): Parallel lines cannot be drawn to any one side of a triangle.
43. **Assertion (A):** the discriminant of the quadratic equation $2x^2 - 4x + 3 = 0$, is -8 and hence the nature of its roots is no real roots .
Reason (R): if $b^2 - 4ac < 0$ the nature of root is no real roots.
44. Find the values of p and q if the lines $px + qy = 7$ and $2x - 3y = 4$ are parallel.
45. Solve the system of equations using the substitution method: $3x - 2y = 8$ $x + y = 4$
46. Determine the values of a and b if the lines $3x + 2y = 10$ and $ax + by = 5$ are perpendicular to each other.
47. Find the least positive value of k for which the equation $x^2 + kx + 4 = 0$ has real roots.
48. Find the values of k for which the following equation has equal roots: $(k - 12)x^2 + 2(k - 12)x + 2 = 0$
49. If (-5) is a root of the quadratic equation $2x^2 + px + 15 = 0$ and the quadratic equation $p(x^2 + x) + k = 0$ has equal roots, then find the values of p and k .
50. A cottage industry produces a certain number of toys in a day. The cost of production of each

toy (in rupees) was found to be 55 minus the number of toys produced in a day. On a particular day, the total cost of production was ₹ 750. We would like to find out the number of toys produced on that day. Represent the situations mathematically (quadratic equation). At t minutes past 2 p.m, the time needed by the minute hand of a clock to show 3 p.m. was found to be 3 minutes less than t 24 minutes. Find t .

51. In a formula racing competition, the time taken by two racing cars A and B to complete one round of the track is 30 minutes and p minutes respectively. If the cars meet again at the starting point for the first time after 90 minutes and the HCF (30, p) = 15, then the value of p is

52. National Art convention got registrations from students from all parts of the country, of which 60 are interested in music, 84 are interested in dance and 108 students are interested in handicrafts. For optimum cultural exchange, organizers wish to keep them in minimum number of groups such that each group consists of students interested in the same artform and the number of students in each group is the same. Find the number of students in each group. Find the number of groups in each art form. How many rooms are required if each group will be allotted a room?

53. Aakriti decided to distribute milk in an orphanage on her birthday. The supplier brought two milk containers which contain 398 litres and 436 litres of milk. The milk is to be transferred to other containers so that 7 litres and 11 litres of milk is left in both the containers respectively. What will be the maximum capacity of the measuring drum?

54. In a school there are two sections, namely A and B, of class X. There are 30 students in section A and 28 students in section B. Find the minimum number of books required for their class library so that they can be distributed equally among students of section A or section B

55. Three bells ring at an interval of 4, 7 and 14 minutes. All three bells rang together at 6am, at what time will the three bells ring together next?

56. The sum of the digits of a two-digit number is 8. If the tens digit is multiplied by 3 and the ones digit by 5, the resulting number is 29 more than the original number. Find the original number using a pair of linear equations.

57. A boat can travel 28 km upstream in the same time it takes to travel 42 km downstream. If the speed of the stream is 4 km/h, find the speed of the boat in still water.

58. The difference between two numbers is 6, and their sum is 18. Find the numbers using a pair of linear equations.

59. The perimeter of a rectangle is 50 cm. Its length is 15 cm more than its width. Find the dimensions of the rectangle using a pair of linear equations.

60. A sum of money is divided between A and B in the ratio 3:5. If A's share is Rs. 1800, find the total sum of money and B's share using a pair of linear equations

Case Study Based Questions :

61. February 14 is celebrated as International Book Giving Day and many countries in the world celebrate this day. Some people in India also started celebrating this day and donated the following number of books of various subjects to a public library:



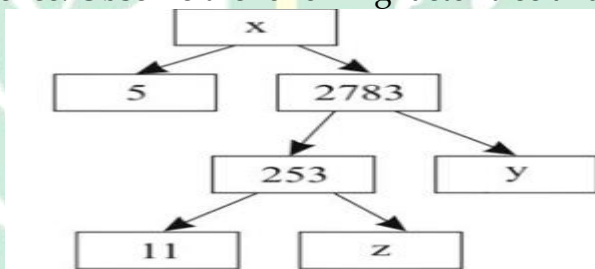
History = 96, Science = 240, Mathematics = 336.

These books have to be arranged in minimum number of stacks such that each stack contains books of only one subject and the number of books on each stack is the same.

Based on the above information, answer the following questions:

- (i) How many books are arranged in each stack?
- (ii) How many stacks are used to arrange all the Mathematics books?
- (iii) (a) Determine the total number of stacks that will be used for arranging all the books.
(b) If the thickness of each book of History, Science and Mathematics is 1.8 cm, 2.2 cm and 2.5 cm respectively, then find the height of each stack of History, Science and Mathematics books.

62. A Mathematics Exhibition is being conducted in your School and one of your friends is making a model of a factor tree. He has some difficulty and asks for your help in completing a quiz for the audience. Observe the following factor tree and answer the following:



- (i) What will be the value of x ?
- (ii) What will be the value of y ?
- (iii) What will be the value of z ?
- (iv) Write the prime factorisation of 13915.

63. A test consists of 'True' or 'False' questions. One mark is awarded for every correct answer while $\frac{1}{4}$ mark is deducted for every wrong answer. A student knew answers to some of the questions. Rest of the questions he attempted by guessing. He answered 120 questions and got 90 marks.

Type of Question	Marks given for correct answer	Marks deducted for wrong answer
True/False	1	0.25

- (a). If answer to all questions he attempted by guessing were wrong, then how many questions did he answer correctly?
- (b). How many questions did he guess?
- (c). If answer to all questions he attempted by guessing were wrong and answered 80 correctly, then how many marks he got?
- (d). If answer to all questions he attempted by guessing were wrong, then how many questions answered correctly to score 95 marks?

64. Japan's LO series Maglev is the fastest train in the world, with a speed record of 602 km/h. It could go the distance from New York City to Montreal in less than an hour. China has half of the eight fastest trains and the world's largest high speed railway network. Suppose a fast train takes 3 hours less than a slow train for a journey of 600 km. If the speed of the slow train is 10 km/h less than that of the fast train, then answer the following questions:

- (a) Find the speed of slow train.
- (b) Find the speed of fast train.

(c) How much time taken by the slow train to cover the distance 600 km?

Subject: Social Science

RISE OF NATIONALISM IN EUROPE

UNIFICATION OF ITALY/ UNIFICATION OF GERMANY.

The assignment has to be prepared of 4-5 pages on the **Unification of Italy** or Unification of Germany. The assignment must include the reasons for the unification and nationalism within these nations and how the unification brought changes and revolutions in the whole of the European countries.

LEARNING OUTCOMES:

- Recognizes the role of Otto Van Bismarck in the unification of Germany.
- Observes the map of Italy and understand the various developments responsible for the unification of Italy. The assignment must include the following:

- 1) Index
- 2) Maps
- 3) Pictures of Unification
- 4) A good web searches



Subject: Geography



Unification of Italy



Unification of Germany

Biological or biohazards can cause devastating effects on society and environment making generations of a nation vulnerable to it. Select any one such disaster and prepare a report on the following aspects of the disaster:

i) Basic characteristics and Level (epidemic or pandemic) (ii) Unicode or biohazard symbol (iii) Involvement of nodal agencies (iv) Legislations (v) Responsibility sharing (vi) Occupations / workplace where people may come into contact (vii) Prevention and control measures (viii) Detection and containment of outbreak (ix) Any other relevant information pertaining to the disaster. Students can use newspaper clippings, photographs, maps, diagrams etc. as illustrations.

OBJECTIVES:

- To develop skills to comprehend, analyze, interpret and evaluate evidences.
- To communicate data in the most appropriate form using a variety of techniques.
- To grow into caring, sensitive individuals capable of making informed, intelligent and independent choices.

The project work can culminate in the form of Charts and albums.

MAP WORK: Students are required to complete the list of maps as per the syllabus covered and compile the same in a file.

SUBJECT - ECONOMICS

- This is an individual activity- find out an existing app of the Government of India to carry on with Right to Seek Redressal as per COPRA 1986.
- Make a flow chart on the steps taken to use this app in order to seek redressal, if you are facing any obstacles/ challenges suggest changes in the app. (Use half of A3 paper for the same.)
- Each student has to present the same. (Time limit: 1 - 2 min.)

Class X - Project Work periods	10 5 marks
Every student must undertake one project on ... Consumer Awareness OR Social Issues OR Sustainable Development Objectives: • The overall objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from an interdisciplinary perspective. • It should also help in enhancing the Life Skills of the students. • Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report • If required, students may go out for collecting data and use different primary and secondary resources to prepare the project. • If possible, various forms of art may be integrated in the project work.	The students will develop the following competencies: ☐ Collaboration ☐ Use analytical skills. ☐ Evaluate the situations during disasters. ☐ Synthesize the information. ☐ Find creative solutions. ☐ Strategies the order of solutions ☐ Use right communication skills

Geography CH 1 Resources and Development

VERY SHORT ANSWER QUESTIONS

- 1) What do you mean by land use pattern? Name the factors that determine the use of land.
- 2) Which soil is ideal for growing cotton, cashew nuts?
- 3) Give one difference between renewable and non-renewable sources.
- 4) What steps can be taken to control soil erosion in the hilly areas?
- 6) What is strip cropping?
- 6) Name any two nutrients which are found in black soils?
- 7) Name the nutrient in which black soils are poor?

SHORT ANSWER QUESTIONS

- 1) "Resources are a function of human activities". Elaborate the statement with suitable arguments.?

- 2) Classify resources on the basis of origin and exhaustibility. Give examples for each. Also mention four basis to classify the resources.
- 3) Write a short note on Rio de Janeiro Earth Summit, 1992, Brazil.
- 4). What is resource planning? Why is resource planning essential?
- 5) Distinguish between Khadar and Bhangar

LONG ANSWER QUESTIONS

- 1) What are main types of soil in India? Which type of soil is most widely spread and important soil of India? State the characteristics of this type of soil?
- 2) Why is resource planning important in the context of a country like India?
- 3) Explain any five proper farming techniques which can be used for soil conservation.

Political Science CH 1 Power Sharing

VERY SHORT ANSWER QUESTIONS

- 1) Which two languages are spoken in Belgium?
- 2) What is majoritarianism?
- 3) What is ethnic group or composition?
- 4) Which major social group constructed the largest share in population of Sri Lanka?
- 5) In which year Sinhala language declared has an official language?
- 6) Suggest the prudential reason. Why power sharing is good for democracy?

SHORT ANSWER QUESTIONS

- 1) Give three reasons for the civil war in Sri Lanka.
- 2) Why is power sharing desirable in a democracy or any other system of government?
- 3) Describe with examples the way in which power can be shared among different social and linguistic groups?
- 4) Describe horizontal and vertical power sharing in modern democracies.
- 5) Write one prudential and moral reason for power sharing.

LONG ANSWER QUESTIONS

- 1) Describe the different form of power sharing in modern democracies. Give an example of each of these.
- 2) What do we learn from the story of Srilanka? Should India follow the Belgian model?
- 3) In what way was the Belgian method better?

Economics CH 1 Development

VERY SHORT ANSWER QUESTIONS

1. What is development?
2. What is the main criterion used by the World Bank in classifying different countries?
3. Why is the total income of countries not used to make comparisons between them?
4. Who prepares Human Development Report?
5. What is Infant Mortality Rate?

SHORT ANSWER QUESTIONS

1. What is development? What are the two aspects of development?
2. What is per capita income? Mention any two limitations of per capita income as an indicator of development.
3. Why do people look at a mix of goals for development? Explain.

4. "Money cannot buy all the goods and services that one needs to live well" Do you agree with this statement? Justify your answer with any three suitable arguments.

LONG ANSWER QUESTIONS

13. What may be the development for one may be the destruction for the other." Explain the statement with appropriate examples.

14.State the three factors other than human income, that are important in life.

15. Explain the importance of sustainable development with reference to groundwater by giving example.

Subject: Computer

I. Write short notes (100-150 words each) on the following:

1. Artificial Intelligence vs Human Intelligence
2. Real-life Applications of AI (mention any 5 with examples)

NOTE: Students can draw diagrams/illustrations/posters along with the short notes.

II. Poster/Infographic (**ART INTEGRATION PROJECT**):

Design a **digital or hand-drawn poster/infographic** explaining the contribution of AI:

"AI in Flood Prediction in Assam and Language Translation (Assamese to English)"

NOTE: Design the infographic and paste the coloured hardcopy in your AI Notebook.

Subject: Sports

Practical / Physical Task

Maintain a Daily Fitness Log (at least 15 days):

- Record your daily fitness activities such as:
- Morning walk or jog (duration/time)
- Exercises (push-ups, skipping, yoga, etc.)
- Sports played (football, badminton, etc.)

Yoga Practice:

- Learn and practice any 3 yoga asanas, draw their diagrams, and write their benefits.

Subject: Art

Make one Landscape painting and Colour Abstraction.

- Use white paper (A3 size)
- Medium - water colour, pastel colour
- Reference -Impressionism landscape and the Artist Jackson Pollock

ESTD. 2019