SUMMER ASSIGNMENTS SESSION 2024-25
CLASS X
ENGLISH

Q.1.Ministry of Housing and Urban Development named Indore the cleanest city inIndia. Indore is in no mood to be dethroned from the top ranking of the cleanest city and is ready to be in the same position for the seventh time. Indore Municipal

Corporation (IMC) is walking the extra mile to enhance its overall swachh quotient. As a citizen of Indore write an article on the topic " Journey of Indore as India's Cleanest City".

Q.2-Role Play

- Read the autobiography of Nelson Mandela
- Pick a situation from his/ her life that has inspired you the most.
- Now, write down dialogues for a role play that you will present after your vacations
- Be original and creative.

Q.3. Questionaire Making-

Read the chapter 'A Letter to God' and prepare 15 multiple choice questions .

Q.4.Be innovative with values-

Create your own diary in which you will write daily about any one positive change which you will bring in yourself like being organized or being punctual etc (80-100 words)

Where to do: small handmade diary which should be properly decorated.

CLASS X
ENGLISH

Q.5. Rohan always stammers, when he has to speak some 's' words . So he skips the words starting with 's' while he speaks. Rohan by completing his conversation by filling in 's' words in the gaps.

On the day of festival tilling or digging the (a) ------------ is forbidden. After (b) -------------- males from all homes gather at the (c) --------------appointed by the gaita. Each member comes with a handful of (d) ----------------- in a pouch made of leaves. And each one brings (e) ----------------to (f) ---------------, usually a cock or hen. The pouches of seeds are laid in a deep heap before the (g) ---------------------of the earth usually a rock. The gaita performs puja to the symbol of earth, the rock. He (h) -----------------------a large knife into the earth and (i) ------------------it with turmeric, flowers, coconut and incense.

NOTE-

☐ Questions no.1- 3 and 5 should be done in A-4 size sheets.

☐ Insert all the sheets in a folder.

☐ Question no.4 -in a small handmade diary

1. उपन्यास सम्राट मुंशी प्रेमचंद के व्यक्तित्व एवं कृतित्व पर प्रकाश डालते हुए एक प्रोजेक्ट **फाइल** तैयार कीजिए।

2. समाचार पत्र में से निविदा सूचना गुमशुदा सूचना विक्रय सूचना आदि विविध प्रकारों के कोई पाँच नमूने ले कर **अभ्यास पुस्तिका** में चिपकाएँ एवं इस आधार पर सूचना लेखन में ध्यान रखने योग्य बातें बिंदुवार निर्माण कीजिये।

3. किसी प्रसिद्ध कंपनी की लक्जरी कार के लिए विज्ञापन बनाइए।

   (अभ्यास पुस्तिका)

4. विद्यालय में करवाई जाने वाली किसी पसंदीदा प्रार्थना की आठ पंक्तियों को चुनकर उन्हें भावार्थ के साथ **अभ्यास पुस्तिका** में लिखिए। उसकी काव्यगत विशेषताओं का भी उल्लेख कीजिये।

5. एक ऐसी मौलिक कहानी लिखिए जिसके अंत में यह वाक्य लिखा गया हो–

   - काश, मैं भी वहाँ होता /होती
   - अंततः मेरी जीत हुई
   - काश, मैने भी एक पेड़ लगाया होता
     (अभ्यास पुस्तिका)

CHAPTER: Life Processes

TOPIC : Nutrition

TASK : Read given topic.

ASSIGNMENT : Complete all the given questions below in your notebook.

MATERIAL : Study notes and NCERT book

1. The leaves of a plant first prepare food A by photosynthesis. Food A then gets converted and stored as food B. What are A and B?

2. Which substance is used to remove chlorophyll from a green leaf during photosynthesis experiments?

3. Name the pigment which is present in chloroplast which absorbs sunlight. What is the site of Chloroplast in a leaf?

4. Name the organisms which perform the parasitic , saprophytic and holozoic mode of nutrition.(Two e.g. for each).

5. How do xerophytes perform photosynthesis?

6. What are the three events occur during the process of photosynthesis? Is it essential these steps take place one after the other immediately?

7. Leaves of healthy potted plant were coated with Vaseline to block the stomata. Will this plant remain healthy for long time? State three reasons for your answer.
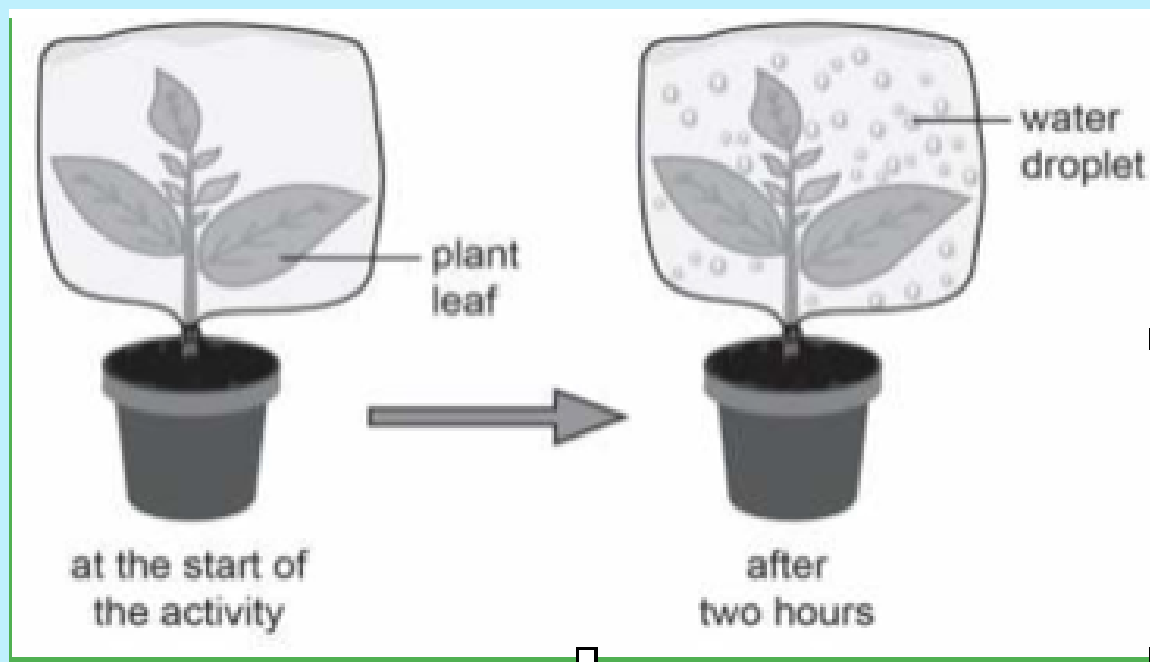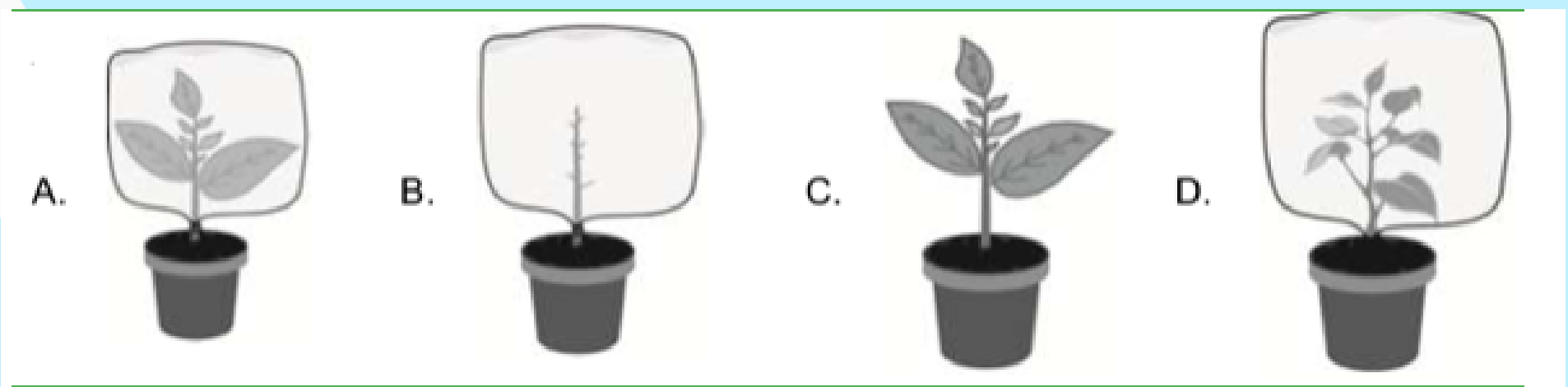
8. State the functions of stomata.

CLASS X
SUBJECT: BIOLOGY
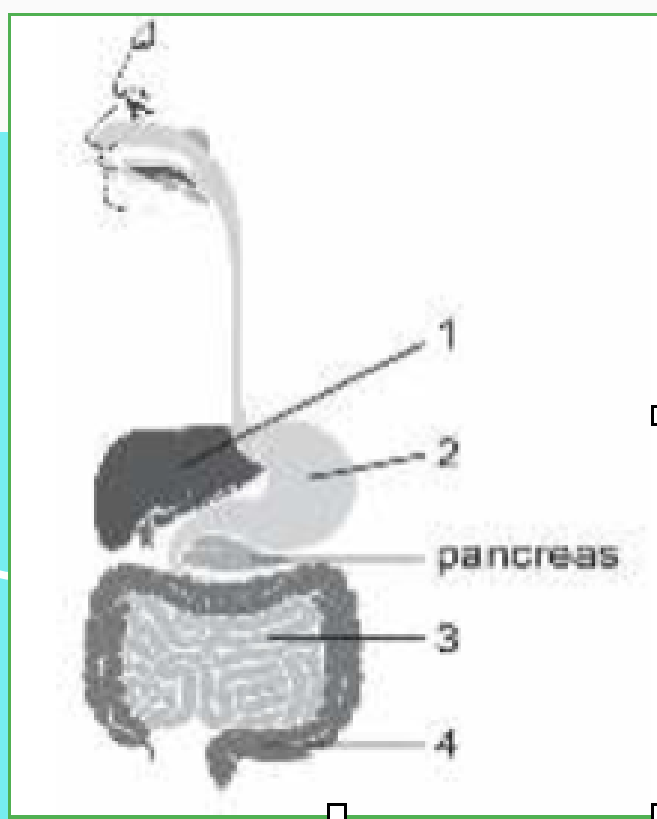
COMPETENCY BASED QUESTIONS:

1. Sanjeev wanted to check whether plant leaves release water vapour. He took a potted plant and covered the plant with a plastic bag. The picture below shows what he observed after 2 hours.

Sanjeev compared the results of the activity with a new pot to confirm his findings. Which of the following best represent the new pot?

2. The diagram below shows the human alimentary canal. 1 , 2 , 3 & 4 are four different organs that are parts of canal. Identify these parts & label in given diagram.
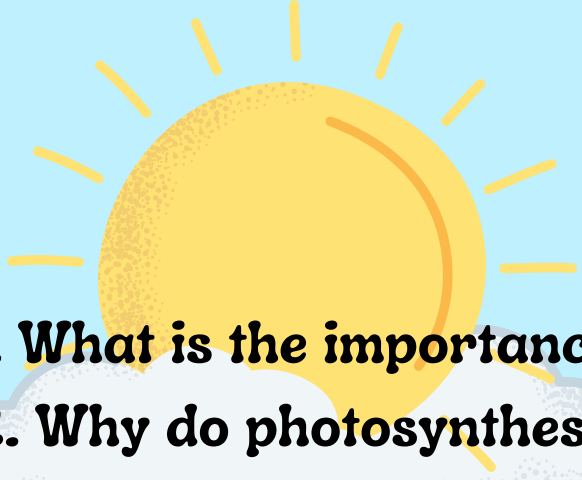
CLASS X
SUBJECT: BIOLOGY

PROJECT WORK

- Prepare a puzzle games on Life Processes chapter.
- PORTFOLIO (Chapter- Management of natural resources) can include photographs/paintings or other examples of artistic Endeavour/script/jingles/audio-video recording/reflective sheets on situations ,events, participation etc/ppt/manual sheets etc. (It will be your choice that how to do in a best way).

1. What is the importance of nutrients?

2. Why do photosynthesis consider a photochemical reaction?

3. What is the role of the following in photosynthesis- i-Chloroplast ii- Water iii- CO_2

4. 'Stomata remain closed in desert plants during daytime'. How do they do photosynthesis?

5. a. Draw a diagram to show open stomatal pore and label on it:

i. guard cells

ii. chloroplast

b. State two functions of stomata.

c. How do guard cells regulate the opening and closing of stomatal pore?

6. (a) List the three events that occur during the process of photosynthesis. Explain the role of stomata in this process.

(b) Describe an experiment to show that "sunlight is essential for photosynthesis."

7. How do plants obtain food? What are the two phases of photosynthesis?

8. What is holozoic nutrition? Give one example.

9. Describe the process of nutrition in amoeba.

10. What is the peristaltic movement?

11. Draw a diagram of human alimentary canal starting from stomach and ending at anus. Label any six parts.

12. Mention the location of four major glands associated with the digestive system of humans and explain the function of each.

13. How is the wall of small intestine adapted for performing the function of absorption of food ?

14. What is saliva? State its role in the digestion of food

15. What are Villi? Where are they present? What is their function?

16. What are the different components and functions of gastric juice?

17. How do carbohydrates, proteins and fats get digested in human beings?

18. If salivary amylase is lacking in the saliva, which of the following events in the mouth cavity will be affected?

a. Proteins breaking down into amino acids

b. Starch breaking down into sugars.

c. Fats breaking down into fatty acids and glycerol.

d. Absorption of vitamins.

19. Why is small intestine longer in herbivores than in carnivores ?

20. Why is the inner wall of the alimentary canal not digested although the digestive enzymes can digest all the materials that make cells?

21. Why enzymes are in active form even when there is no food in our stomach?

TOPIC: Light-Reflection and Refraction

Write the following questions in your notebook.

The pictures show four ray diagrams of images formed by concave mirrors.
P is the pole or centre of the reflecting surface of the mirror.
C is the centre of curvature of the mirror.
F is the focus of the mirror.
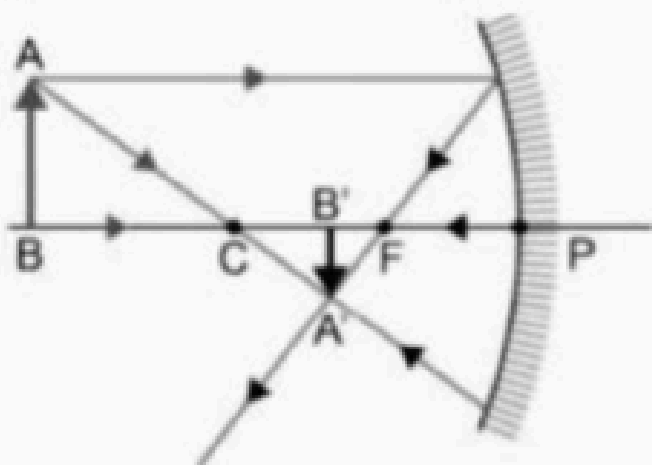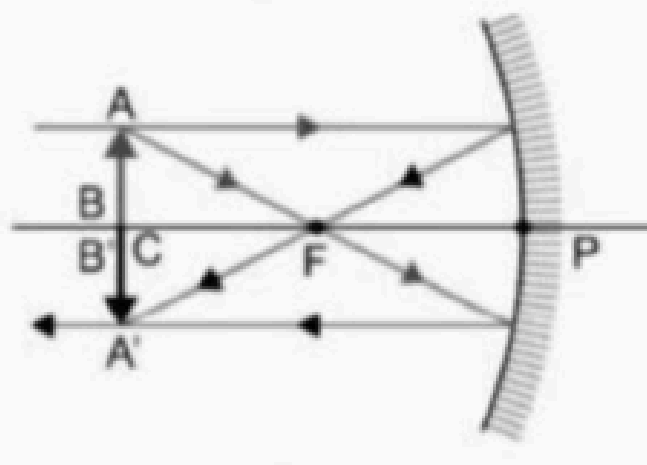AB is the object and A'B' is the image of the object.
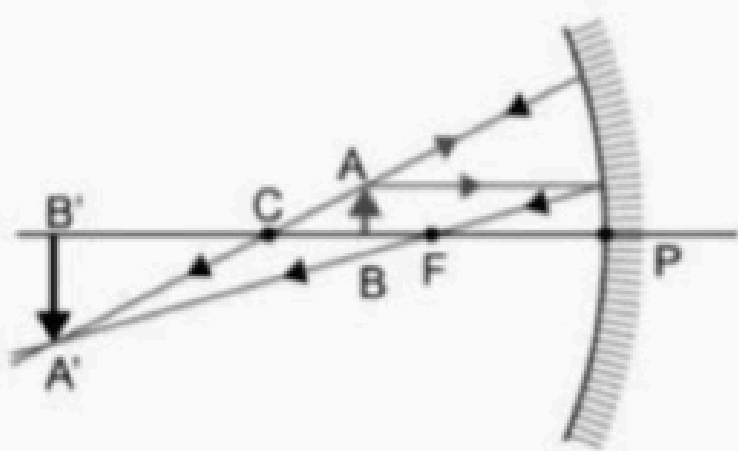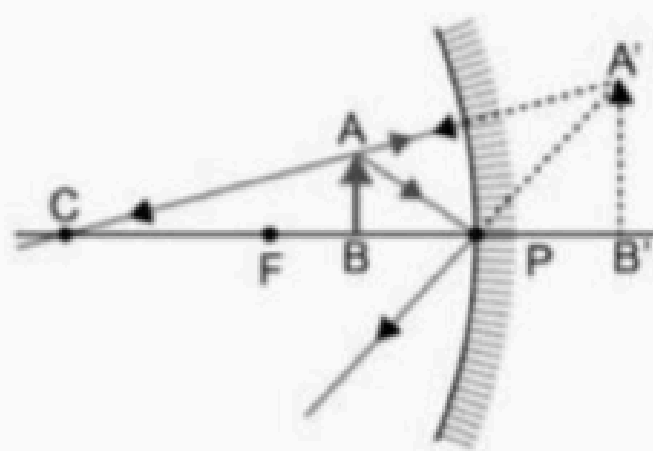
Diagram 1

Diagram 2

Diagram 3

Diagram 4

1 Which of these can be concluded from diagram 1?

A.   Image is formed at the focus.
B.   Size of the image is equal to the size of the object.
C.   Distance between pole and centre of curvature is twice the focal length.
D.   Distance between the image and focus is half the distance between the object and focus.

2 Which diagram shows a real, inverted and enlarged image formed by the mirror?

A.   Diagram 1
B.   Diagram 2
C.   Diagram 3
D.   Diagram 4

3 In which condition does a concave mirror produce a virtual image?

A.   When object is located within the focal length
B.   When object is located at the centre of curvature
C.   When object is located in between infinity and the centre of curvature
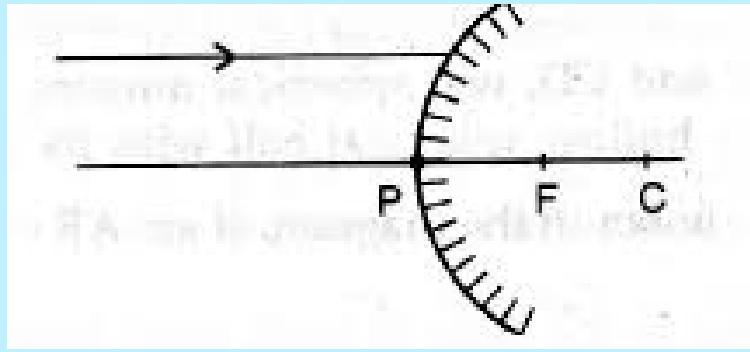D.   When object is located in between the centre of curvature and the focus
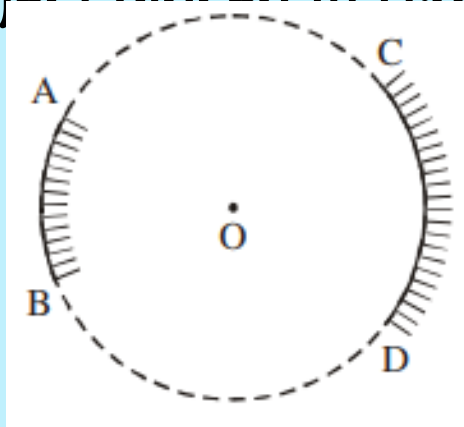
CLASS X
SUBJECT: PHYSICS
TOPIC: Light-Reflection and Refraction

Write the following Experiments in your Practical File:

1- A ray of light is incident on a convex mirror as shown. Redraw the diagram and complete the path of this ray after reflection from the mirror. Mark angle of incidence and angle of reflection on it.

2- AB and CD, two spherical mirrors, from parts of a hollow spherical ball with its centre at O as shown in the diagram. If arc AB = 12 arc CD, what is the ratio of their focal lengths? State which of the two mirrors will always form virtual image of an object placed in front of it and why?

3- Determination of the focal length of:
i) Concave mirror
ii) Convex lens by obtaining the image of a distant object.

4- A student wants to project the image of a candle flame on a screen 48 cm in front of a mirror by keeping the flame at a distance of 12 cm from its pole.
(a) Suggest the type of mirror he should use.
(b) How far is the image from its object?
(c) Draw ray diagram to show the image formation in this case..

5-Prepare a PPT. on the formation of Real and Virtual images by a spherical mirrors.

6. Make a list of atleast ten uses of concave and convex mirrors in our daily life around us.

7. Observe your day-to-day activities during summer vacation and enlist any five activities which involves the principles of Reflection or Refraction .Describe any two of these activities comprehensively.
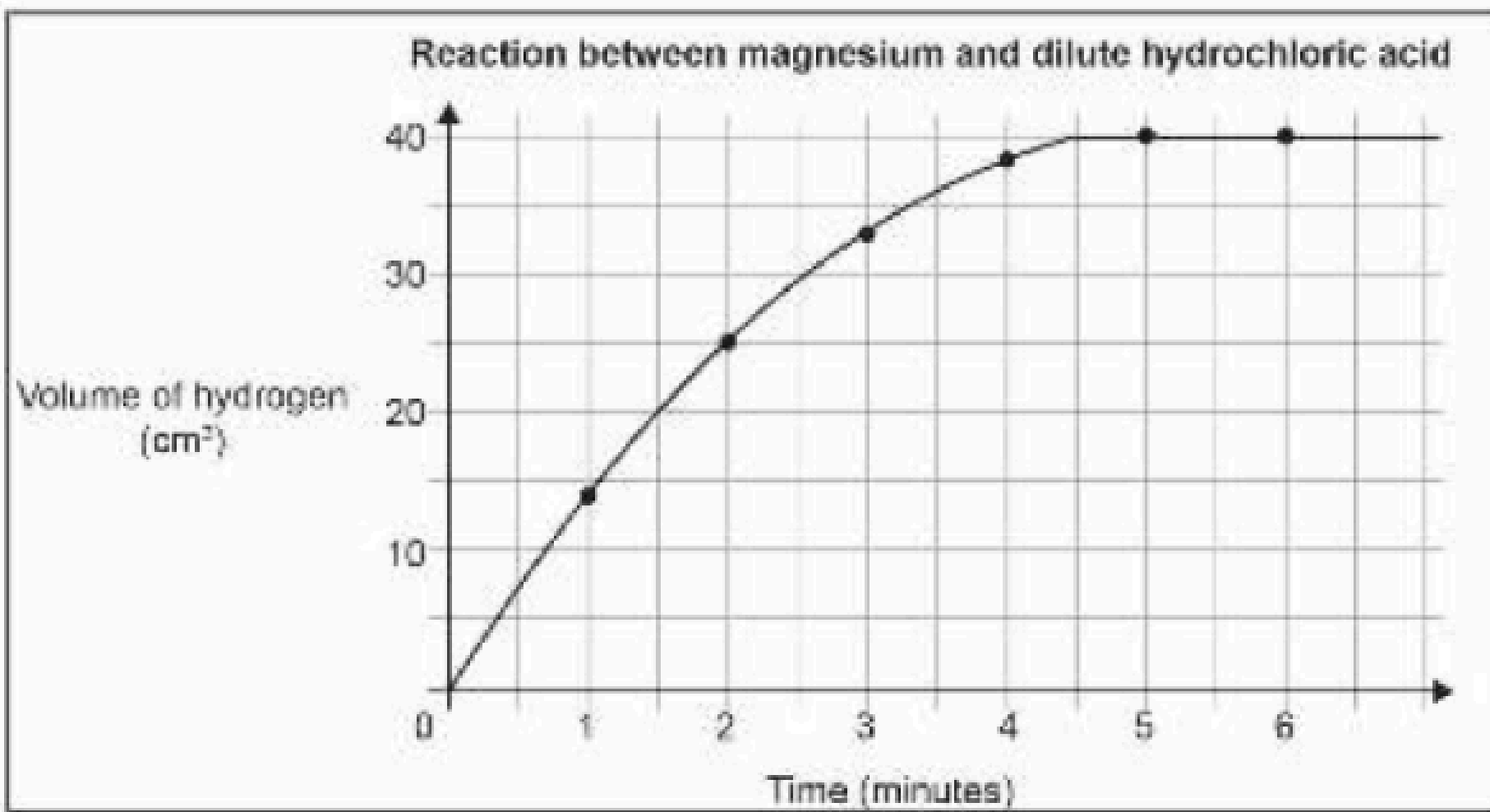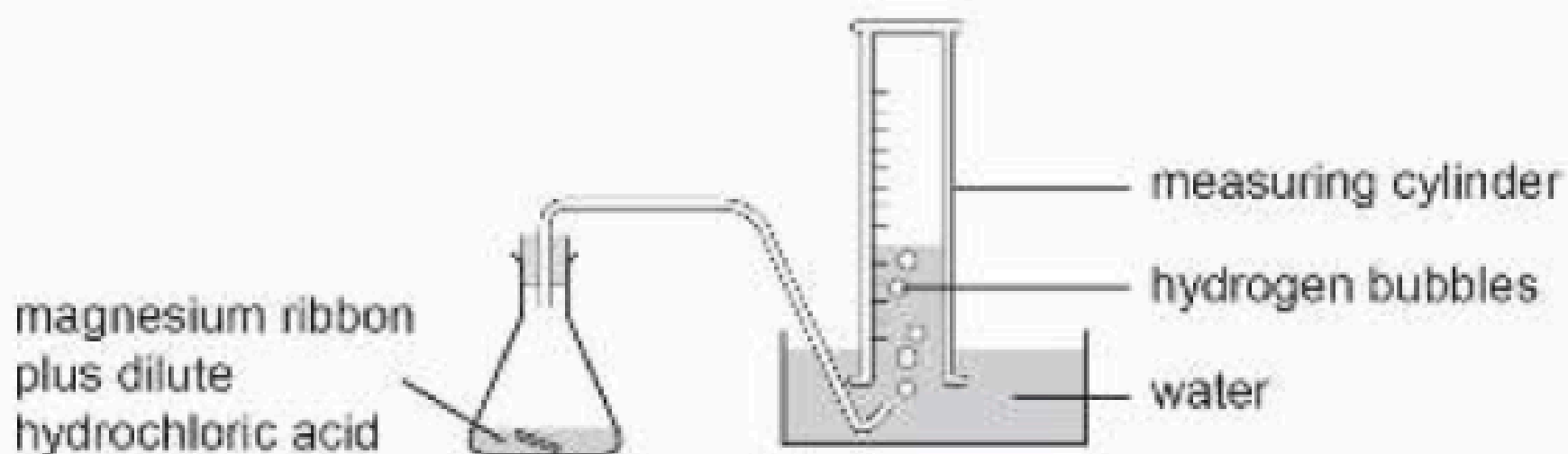
CLASS X
SUBJECT: CHEMISTRY

TOPIC: CHEMICAL REACTIONS AND EQUATIONS

A piece of magnesium ribbon is added to a flask containing dilute HCL acid . Hydrogen gas is formed which is collected in the measuring cylinder. The amount of hydrogen is formed with time is plotted on a graph. The line on the graph indicates the rate of chemical reaction occurring in the flask.

1. At what time is the rate of reaction is fastest in the flask?
(a) At 1 minute
(b) At 3 minute
(c) At 4 minute
(d) At 6 minute

2. The reaction is repeated with magnesium powder in place of magnesium ribbon under the same conditions. Will the reaction rate increase or decrease? Explain your answer with reference to the volume of hydrogen formed in the flask at 2 minutes.

3. Which of these could increase the rate of reaction in the flask ? Circle 'Yes' or 'No' for each row.

Will this increase the rate of reaction?	Yes or No
Adding more acid to the flask	Yes/No
Heating the acid in the flask	Yes/No
Using a higher concentration of acid	Yes/No

4. Magnesium reacts with HCL acid to form magnesium chloride and hydrogen gas . Write the balanced chemical equation to show the reaction.

5. Which of these is an example of decomposition reaction?
(a) Melting of glaciers
(b) Rusting of old bridges
(c) Rotting of fruits & vegetables
(d) Absorption of carbon dioxide by oceans.

6. Methane gas released from waste water treatment plants can be used as a source of fuel. Which chemical equation represents combustion of methane to produce heat energy?

(a) $CH_4 + CO_2 \rightarrow 2O_2 + 2H_2O$

(b) $CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$

(c) $2O_2 + 2H_2O \rightarrow CO_2 + CH_4$

(d) $CO_2 + 2O_2 \rightarrow CH_4 + 2H_2O$

7. Write the balanced symbolic equation for the following chemical reactions.
(i) Nitric acid + Slaked lime $\rightarrow$ Calcium nitrate + Water
(ii) Sodium hydroxide + Sulphuric acid $\rightarrow$ Sodium sulphate + Water
(iii) Sodium chloride + Silver nitrate $\rightarrow$ Silver chloride + Sodium nitrate
(iv) Barium chloride + Sulphuric acid $\rightarrow$ Barium sulphate + Hydrogen chloride
(v) Lead nitrate + Potassium iodide $\rightarrow$ Lead iodide + Potassium nitrate

8. Make a Formula cum Equation book and write the equations of Chemical Reactions and Equations; Acids, bases and Salts in it. (Use coloured pens/sheets, make a nice cover page with your name and class properly labelled)

9. Read the chapter :Chemical Reactions and Equations and Create 15 multiple choice questions.

CLASS X
SUBJECT: MATHEMATICS

INSTRUCTIONS:

- Solve in your assignment copy only.
- Assignment copy must be covered and labeled.
- Work should be neat and clean.
- Submission date :   13/06/2024

A. Word Problems(Solve it by substitution and elimination methods)

1. The numerator of a fraction is 4 less than the denominator. If the numerator is decreased by 2 and denominator is increased by 1, then the denominator is eight times the numerator. find the fraction.

2. A fraction becomes 9/11 if 2 is added to both numerator and denominator . If 3 is added to both the numerator and denominator it becomes 5/6. Find the fraction.

3. when 3 is added to the denominator and 2 is subtracted from the numerator a fraction becomes 1/4 . And, when 6 is added to numerator and the denominator is multiplied by 3, it becomes 2/3. Find the fraction.

4. Ten years ago, a father was twelve times as old as his son and ten years hence, he will be twice as old as his son will be then. Find their present ages.

5. The Present age of a father is three years more than three times the age of the son. Three years hence father's age will be 10 years more than twice the age of the son. Determine their present ages.

6. The Car hire charges in a City comprise of a fixed charges together with the charge for the distance covered . For a journey of 12 km, the charge paid is ₹89 and for a journey of 20 km, the charge paid is ₹145. What will a person have to pay for travelling a distance of 30 km.

7. A shopkeeper gives books on rent for reading. She takes a fixed charge for the first two days, and an additional charge for each day thereafter. Latika paid ₹22 for a book kept for 6 days, while Anand paid ₹16 for the book kept for 4 days. Find the fixed charges and charge for each extraday.

B. Frame 5 Word Problems of linear equation 2 variables from the real life situations and solve it by substitution method.

C. Word Problems(Solve it by graphical method)

1. $4x - 5y - 20 = 0$

   $3x + 5y - 15 = 0$

Determine the vertices of the triangle formed by the lines representing the above equation and the y- axis.

2. $5x - y = 5$ and $3x - y = 3$. Determine the co- ordinates of the vertices of the triangle formed by these lines and y- axis. Calculate the area of the triangle so formed.

D. Value based questions (Solve it by any method)

1. Savita's Car broke at a points 2 units away from the garage. She requested a man for help, who pushed her car to the garage. The work done by a body on the application of a constant force is the product of the constant force and the distance travelled by the body in the direction of the force.

   i.   Express the above activity in the form of a linear equation in two variables by taking the constant force as 3 units and distance travelled as 2 units.
   ii.   Verify it by plotting the graph.
   iii. By pushing the car to the garage, which value is depicted by the man?

2. A and B , two students of class IX of a school, together contributed ₹100 towards the Prime Minister's relief Fund to help the earthquake victims.
(a) Write a linear equation which the above data satisfies.
(b) Draw the graph for the above data.
(c) By donating towards Prime Minster's Relief Fund, which value is depicted by A and B ?

E. COMPETENCY BASED QUESTIONS

1. A new intracity transportation startup has employed both taxis and auto rickshaws. The night fare for a taxi is Rs.9 for the first half kilometer and Rs15 per km thereafter, while the nightfare for an autorickshaw is Rs.20 for the first one kilometer and Rs 13 per km thereafter

i) Express the nightfare structure for taxis and auto rickshaws in the form of linear equations. use f as the fare (in Rs.) and d as the distance travelled (in km)

ii) At what distance is the night fare for a taxi and an auto rickshaw equal ? Show your steps.

2.   Arvind owns a dry fruit store. He sells cashew nuts at Rs. 600/kg and pistachio nuts at Rs.750/kg.

A Customer asks for a mixture of cashew nuts and pistachio nuts with the following conditions:

➤ both the items should together weigh 500g.
➤ both the items should together cost Rs 360.

i. If Arvind packs x kg of cashew nuts and y kg of pistachio nuts for the customer, frame the equations that represent the given context.

ii. Find the weights of cashew nuts and pistachio nuts that Arvind packed for the customer. Show your work.

MCQ BASED QUESTIONS

1. The graphs of the equations $6x - 2y + 9 = 0$ and $3x - y + 12 = 0$ are two lines which are:
   (a) coincident
   (b) parallel
   (c) intersecting exactly at one point
   (d) perpendicular to each other

2. The graphs of the equations $2x + 3y - 2 = 0$ and $x - 2y - 8 = 0$ are two lines which are:
   (a) coincident
   (b) parallel
   (c) intersecting exactly at one point
   (d) perpendicular to each other

3. The system $x + 2y = 3$ and $5x + ky + 7 = 0$ has no solution, when
   (a) $k = 10$ (b) $k \neq 10$ (c) $k = -7/3$ (d) $k = -21$

4. The graphs of the line equation $5x - 15y = 8$ and $3x - 9y =$ are two lines which are:
   (a) coincident
   (b) parallel
   (c) intersecting exactly at one point
   (d) perpendicular to each other

5. If the lines given by $3x + 2ky = 2$ and $2x + 5y + 1 = 0$ are parallel, then the value of k is:
   (a) $\dfrac{-5}{4}$ (b) $\dfrac{2}{5}$ (c) $\dfrac{3}{2}$ (d) $\dfrac{15}{4}$

6. For what value of k do the equation $kx - 2y = 3$ and $3x + y = 5$ represent two lines intersecting at a unique point?
   (a) $k = 3$
   (b) $k = -3$
   (c) $k = 6$
   (d) all real values except -6

7. If $3x/2 - 5y/3 = -2$, $x/3 + y/2 = 13/6$, then find the value of x and y (GIVE SOLUTION)

8. The pair of equation $x + 2y + 5 = 0$ and $-3x - 6y + 1 = 0$ has
   (a) a unique solution
   (b) exactly two solution
   (c) infinitely many solutions
   (d) no solution

9. The solution of the following pair of equation is: $x - 3y = 2$, $3x - y = 14$
   (a) $x = 5, y = 1$ (b) $x = 2, y = 3$ (c) $x = 1, y = 2$ (d) $x = 1, y = 4$

10. For what value of k does the system of equation $x + 2y = 3$ and $5x + ky + 7 = 0$ have no solution?
   (a) $k = 10$
   (b) $k = 3$
   (c) $k = -21$
   (d) $k \neq 10$

CLASS X
SUBJECT: SOCIAL SCIENCE

A Project file is to be made on the following topic, with a strict adherence to the following instructions:

<u>Topic: Consumer Awareness</u>

<u>Guidelines from the CBSE</u>

1. 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 interdisciplinary perspective.

2. 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.

3. The distribution of marks over different aspects relating to Project Work is as follows:

a. Content accuracy, originality and analysis (2)

b. Presentation and creativity (1)

c. Viva Voce (2)

4. The Project Report should be handwritten by the students themselves.

<u>General instructions for CBSE Project:</u>

1. The students can use information from the "Jago Grahak" website or "fssai" initiative. Usage of questionnaires and research work is advisable.

2. The project must be done neatly in a proper file with ruled sheets with suitable information, pictures, graphs, questionnairs , caricatures etc.

<u>Multiple Assessment</u>

1. Make a comic caricature depicting the current political upheaval in the country.

2.Prepare a presentation highlighting the importance of land and soil resources.

3 . Look up various legislation passed by various countries aimed at conservation and sustainable development following the Earth Summit. Make a report based on your findings.

4. Assess the natural resources in the locality where you live .

Are any of these resources being misused and causing harm to the environment?

CLASS X
SUBJECT: SOCIAL SCIENCE

ART INTEGRATED PROJECT
Topic : (Pairing state BIHAR)
General Instructions:
- The project file must be made in A4 size paper.
- The front page should be decorated by hand made drawings as it is art project.
- Pictures, map, graphs, cartoons should be pasted .
- The project should be taken up in eco friendly manner,using available local resources.
- The marks awarded for these projects,as part of subject enrichment activities.
- Project are interdisciplinary, involving as many subjects as language ,Arts, Social science, Science,Maths,Science Drama,Dance etc.

1. Front page school name and school logo.

2. Students details.

3. Acknowledgement.

4. Index.

5. Introduction about the state Bihar.

6. Area size and location.

7. Language temples and monuments.

8. Development in terms of political economic and social.

9. Food festival and culture

10. Folk dance and music.

11. State famous symbols (animal, bird , Tree ,crop,song etc.)

12. Wildlife sanctuaries

1. Choose a topic: Start by selecting a topic related to AI that interests you.

1. Applications of AI in healthcare
2. Impact of AI on the job market
3. Ethics of AI
4. AI and the environment
5. History of AI

2. Research: Once you have chosen your topic, research it thoroughly. Look for reliable sources such as academic Book, news articles, and government reports. Make sure to take notes and keep track of your sources.

3. Create an outline: Based on your research, create an outline for your PowerPoint presentation. Divide your presentation into sections and subsections, and organize your content in a logical manner.

4. Choose a design template: Choose a design template for your PowerPoint presentation that is appropriate for your topic. Make sure that the design is clear and easy to read, with appropriate use of images and graphs.

5. Create your slides: Create your PowerPoint slides based on your outline. Use bullet points and short sentences to convey your main ideas, and include relevant images and graphs to illustrate your points. Keep your slides simple and uncluttered.

6. Practice your presentation: Practice your PowerPoint presentation several times to ensure that you are comfortable with the material and can deliver it confidently. Time yourself to make sure that you can complete the presentation within the allotted time.

7. Review and revise: Review your PowerPoint presentation for any errors or inconsistencies, and revise as necessary. Ask a friend or family member to review your presentation and provide feedback.

8. Finalize and submit: Once you are satisfied with your PowerPoint presentation, save it as a PDF and submit it to your teacher or instructor according to their instructions.