S.D. VIDYA MANDIR-CITY, PANIPAT

A Unit of Shri S.D. Education Society (Regd.)

HOLIDAY'S HOMEWORK

CLASS X

SESSION 2023-24

www.shutterstock.com · 264059468

1.   Revise chapter – Light ,life process and chemical equation and reaction.
2.   Complete the practical file.
3.   Make a working model on the use of science and technology .
4.   Do the given assignments.
5.   Draw any three ray diagrams of mirror using household material (example : thread , wool , matchstick etc.)
6.   Art integrated project: Haryana pairing with Manipur (everyone will submit their own project)

CHEMISTRY

<u>1.</u> Chapter 1: CHEMICAL REACTIONS AND EQUATIONS

1) Name the oxidising and the reducing agents in the following reaction:

$CuO + H_2 ----\rightarrow Cu + H_2O$

2) What type of coating is formed on silver articles when they get corroded?
3) Balance the chemical equation:

$Fe(s) + H_2O(g) \rightarrow Fe_3O_4(s) + H_2(g)$

4) Why are all decomposition reactions endothermic in nature?
5) What is meant by skeletal chemical equation?
6) a) Why is combination reaction an oxidation reaction?

b) How will you test whether the gas evolved in a reaction is CO_2?

7) An aluminium can is used to store ferrous sulphate solution. It is observed that in few days holes appeared in the can. Explain the observation and write chemical equation to support your answer.

8) Write balanced chemical equations for the following:

a) Silver Bromide on exposure to sunlight decomposes into silver and bromine.

b) Sodium metal reacts with water to form sodium hydroxide and hydrogen gas. s

BIOLOGY

1. What is the advantage of having four chambered heart?
2. Mention the major events during photosynthesis.
3. Name the glands present in the wall of the stomach that release secretions for digestion of food. Write the three components of secretion that are released by these glands.
4. Explain with the help of neat and well labelled diagrams the different steps involved in nutrition in Amoeba.
5. (a) Why is nutrition necessary for the human body?(b) What causes movement of food inside the alimentary canal?
   (c) Why is small intestine in herbivores longer than in carnivores?
   (d) What will happen if mucus is not secreted by the gastric glands?
6. Diffusion is insufficient to meet the oxygen requirement of multicellular organisms like human. State reason.
7. a) In the process of respiration, state the function of alveoli.
   (b) Rate of breathing in aquatic organisms is much faster than that in terrestrial organisms. Give reasons.
   (c) Complete the following pathway showing the breakdown of glucose.
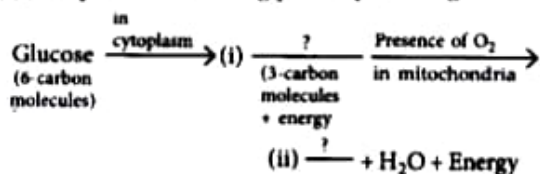
8. (a) State reasons for the following
   (i) Herbivores need a longer small intestine while carnivores have shorter small intestine.
   (ii) The lungs are designed in human beings to maximise the area for exchange of gases.
   (b) The rate of breathing in aquatic organisms'is much faster than that seen in terrestrial organisms.

PHYSICS

1.Define the principal focus of a concave mirror.

2. Name a mirror that can give an erect and enlarged image of.an Object.

3. Why do we prefer a convex mirror as a rear-view mirror in vehicles?\

4. A convex mirror used for rear-view on an automobile has a radius of curvature of 3.00 m. If a bus is located at 5.00 m from this mirror, find the position, nature and size of the image.

5. An object, 4.0 cm in size, is placed at 25.0 cm in front of a concave mirror of focal length 15.0 cm. At what distance from the mirror should a screen be placed in order to obtain a sharp image? Find the nature and the size of the image.

6. A ray of light travelling in air enters obliquely into water. Does the light ray bend towards the normal or away from the normal? Why?

7. You are given kerosene, turpentine and water. In which of these does the light travel fastest and Why?

8. The refractive index of diamond is 2.42. What is the meaning of this statement?

9. A 2.0 cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 10 cm. The distance of the object from the lens is 15 cm. Find the nature, position and size of the image. Also find its magnification.

10. One-half of a convex lens is covered with a black paper. Will this lens produce a complete image of the object? Verify your answer experimentally. Explain your observations.

1. solve for x

(i) $x^2 - 2(a^2 + b^2)x + (a^2 - b^2)^2 = 0$ (ii) $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$ (iii) $4\sqrt{3}x^2 + 5x - 2\sqrt{3} = 0$

(iv) $(a+b)^2 x^2 + 8(a^2 - b^2)x + 16(a-b)^2 = 0$ (v) $\sqrt{3}x^2 - 2\sqrt{2}x - 2\sqrt{3} = 0$

(vi) $1/(a+b+x) = 1/a + 1/b + 1/x$, $a \neq 0$, $b \neq 0$, $x \neq 0$ (vii) $(x+1)/(x-1) + (x-2)/(x+2) = 3$, $x \neq 1, -2$

(viii) $(3x-4)/7 + 7/(3x-4) = 5/2$, $x \neq 4/3$

2. Write the nature of roots of quadratic equation $4x^2 + 4\sqrt{3}x + 3 = 0$.

3. For what value of k are the roots of quadratic equation $3x^2 + 2kx + 27 = 0$ real and equal.

4. A train travels at a certain average speed for a distance of 63km and then travels at a distance of 72km at an average speed of 6km/hr more than its original speed. If it takes 3 hours to complete total journey, what is the original average speed?

5. An aeroplane left 30 minutes later than its scheduled time and in order to reach its destination 1500km away in time, it has to increase its speed by 250 km/hr from its usual speed, determine its usual speed.

6. Two water taps together can fill a tank in 1¾ hours. The tap with longer diameter takes 2 hours less than the tap with smaller one to fill the tank separately. Find the time in which each tap can fill the tank separately.

7. Find the roots of the quadratic equation $\sqrt{2x+9} + x = 13$

8. For what value of k does the quadratic equation $(k-5)x^2 + 2(k-5)x + 2 = 0$ have equal roots?

9. The sum of two digits of a two digits number is 12. If the digits are reversed, then the number so formed exceeds the original number by 18. The original number.

10. A piece of work is done by 6 men and 5 women in 6 days or 3 men and 4 women in 10 days. How many days will it take for 9 men and 15 women to finish that work?

11. The ratio of the incomes of two persons is 9:7 and the ratio of their expenditures is 4:3. If each of them Saves Rs.200 per month, find their monthly incomes.

12. Ankita travels 14 km to her home partly by rickshaw and partly by bus. She takes half an hour if she travels 2 km by rickshaw and the remaining distance by bus. On the other hand, if she travels 4 km by rickshaw and the remaining distance by bus, she takes 9 minutes longer. Find the speed of the rickshaw and of the bus.

13. Find the zeroes of the quadratic polynomial $\sqrt{3}x^2 - 8x + 4\sqrt{3}$.

14.If the zeroes of the polynomial $x^2 + px + q$ are double in value to the zeroes of $2x^2 - 5x - 3$, find the value of p and q.

15.If α and β are the zeroes of the polynomial $6y^2 - 7y + 2$, find a quadratic polynomial whose zeroes are $1/\alpha$ and $1/\beta$.

16.If α and β are zeroes of $p(x) = kx^2 + 4x + 4$, such that $\alpha^2 + \beta^2 = 24$, find k.

17. If α and β are the zeroes of the polynomial $p(x) = 2x^2 + 5x + k$, satisfying the relation, $\alpha^2 + \beta^2 + \alpha\beta = 21/4$ then find the value of k.

18.In which quadrant the point P that divides the line segment joining the points A(2, -5) and B(5,2) in the ratio 2 : 3 lies? Also write the co-ordinates of that point.

19.A line intersects the y-axis and x-axis at the points P and Q respectively. If (2, -5) is the mid point of PQ, then find the coordinates of P and Q .

20.Determine the ratio in which the line $3x + y - 9 = 0$ divides the segment joining the points (1, 3) and (2, 7).

21.If A(4, 3), B(-1, y) and C(3, 4) are the vertices of a right triangle ABC, right-angled at A, then find the value of y.

22.If the point P(x, y) is equidistant from the points A(a + b, b − a) and B(a − b, a + b), prove that bx = ay.

23.Prove that the points A(2, -1), B(3, 4), C(-2, 3) and D(-3, -2) are the vertices of a rhombus ABCD. Is ABCD a square?

Case study:

24. Raj and Ajay are very close friends. Both the families decide to go to Ranikhet by their own cars. Raj's car travels at a speed of x km/h while Ajay's car travels 5 km/h faster than Raj's car. Raj took 4 hours more than Ajay to complete the journey of 400 km.

1). What will be the distance covered by Ajay's car in two hours?

a) 2(x +5)km b) (x − 5)km c) 2(x + 10)km d) (2x + 5)km

2). Which of the following quadratic equation describe the speed of Raj's car?

a) $x^2 - 5x - 500 = 0$ b) $x^2 + 4x - 400 = 0$ c) $x^2 + 5x - 500 = 0$ d) $x^2 - 4x + 400 = 0$
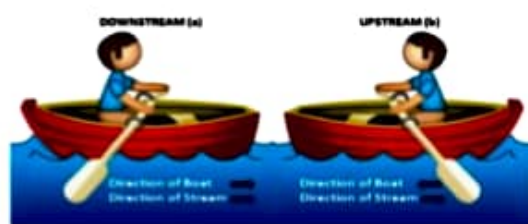
3). What is the speed of Raj's car?

a) 20 km/hour b) 15 km/hour c) 25 km/hour d) 10 km/hour

4). How much time took Ajay to travel 400 km?

a) 20 hour b) 40 hour c) 25 hour d) 16 hour

25. The speed of a motor boat is 20 km/hr. For covering the distance of 15 km the boat took 1 hour more for upstream than downstream.

1). Let speed of the stream be x km/hr. then speed of the motorboat in upstream will be

a) 20 km/hr b) (20 + x) km/hr c) (20 - x) km/hr d) 2 km/hr

2). What is the relation between speed ,distance and time?

 a) speed = (distance)/time b) distance = (speed)/time c) time = speed x distance d) speed = distance x time

3). Which is the correct quadratic equation for the speed of the current ?

a) $x^2 + 30x - 200 = 0$ b) $x^2 + 20x - 400 = 0$ c) $x^2 + 30x - 400 = 0$ d) $x^2 - 20x - 400 = 0$

4). What is the speed of current ?

a) 20 km/hour b) 10 km/hour c) 15 km/hour d) 25 km/hour

5) How much time boat took in downstream?

a) 90 minute b) 15 minute c) 30 minute d) 45 minute

26. A test consists of 'True' or 'False' questions. One mark is awarded for every correct answer while ¼ 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

1). If answer to all questions he attempted by guessing were wrong, then how many questions did he answer correctly?

2). How many questions did he guess?

3). If answer to all questions he attempted by guessing were wrong and answered 80 correctly, then how many marks he got?

4). If answer to all questions he attempted by guessing were wrong, then how many questions answered correctly to score 95 marks?

27. In order to conduct Sports Day activities in your School, lines have been drawn with chalk powder at a distance of 1 m each, in a rectangular shaped ground ABCD, 100 flowerpots have been placed at a distance of 1 m from each other along AD, as shown in given figure below. Niharika runs 1/4 th the distance AD on the 2nd line and posts a green flag. Preet runs 1/5 th distance AD on the eighth line and posts a red flag.
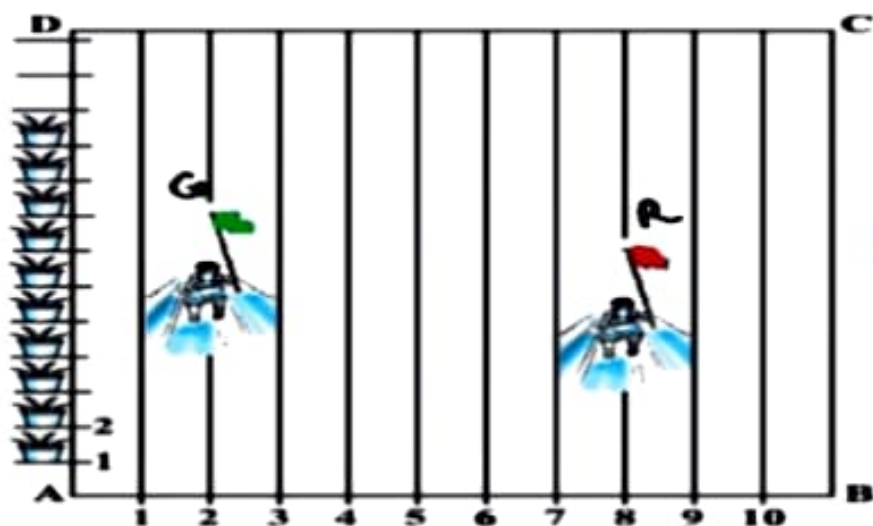
1). Find the position of green flag

a) (2,25) b) (2,0.25) c) (25,2) d) (0, -25)

2). Find the position of red flag

a) (8,0) b) (20,8) c) (8,20) d) (8,0.2)

3). What is the distance between both the flags?

a)√41 b) √11 c) √61 d) √51

4). If Rashmi has to post a blue flag exactly halfway between the line segment joining the two flags, where should she post her flag?

a) (5, 22.5) b) (10,22) c) (2,8.5) d) (2.5,20)

5). If Joy has to post a flag at one-fourth distance from green flag ,in the line segment joining the green and red flags, then where should he post his flag?

a) (3.5,24) b) (0.5,12.5) c) (2.25,8.5) d) (25,20

28. The class X students school in krishanagar have been allotted a rectangular plot of land for their gardening activity. Saplings of Gulmohar are planted on the boundary at a distance of 1 m from each other. There is triangular grassy lawn in the plot as shown in the figure. The students are to sow seeds of flowering plants on the remaining area of the plot.
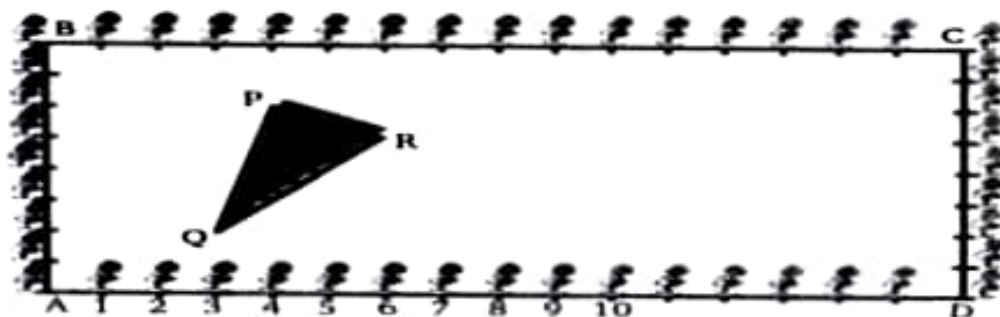
1). Taking A as origin, find the coordinates of P

a) (4,6) b) (6,4) c) (0,6) d) (4,0)

2). What will be the coordinates of R, if C is the origin?

a) (8,6) b) (3,10) c) (10,3) d) (0,6)

3). What will be the coordinates of Q, if C is the origin?

a) (6,13) b) b) (-6,13) c) (-13,6) d) (13,6)

4). Calculate the area of the triangles if A is the origin

a) 4.5 b) 6 c) 8 d) 6.25

5). Calculate the area of the triangles if C is the origin

a) 8 b) 5 c) 6.25 d) 4.5

❖ Do the assignment in separate notebook

❖ Revise => Ch-2 Polynomials, Ch-3 Pair of linear equations in two variables

Ch-4 Quadratic equations, Ch-7 Coordinate geometry.

❖Make an Art Integrated project on Manipur.

Class X   English

1.Make art integrated project work (English+S.st) . (Haryana and Manipur) (in group of 4-5)

2.Prepare one minute speech on any one of the following topics :

A. Impacts of artificial intelligence

B. Plastic Pollution

C. Climate change

3. Do worksheets 85,86,87,88,110,111,121,122 in Bravia(literature)

4. Do exercises of tenses 1 to 5 in Bravia

5. Do worksheets 45,46(editing),74,75 in Bravia (letter)

Art holidays homework

Class 10th
Prepare two scenes on any of the following topics:
- Landscape
- Still Life
- Religious theme
- Sketch of any personality

Note :
- Prepare both scenes on loose A3 size drawing sheets.
- Students can use any Colour Medium.

17:37 ✓

1. Project Work:

Every student has to compulsorily undertake any one project on the following topics:

Consumer Awareness

OR

Social Issues

OR

Sustainable Development

2. Art Integrated Project

Prepare an Art Integrated Project Work by pairing of Haryana and Manipur state.

Note : Do it in preferably A4 Size paper.

*Integrated project will be combined with English.

3. Map work

On the outline political map of India, locate the following:

(a) Important centres of Indian National Movement:

   Amritsar, Chauri-Chaura, Champaran, Dandi, Ahmedabad, Kheda

(b) Important Sessions of National Congress:

   Calcutta (1920), Nagpur (1920), Madras(1927).

(c) Major Ports: Kandla, Mumbai, Marmagao, New Mangalore, Kochi, Tuticorin, Chennai,

Vishakhapatnam, Paradip and Halida.

(d) <u>International Airports:</u> Amritsar (Raja Sansi-Sri Guru Ram Dass Jee); Delhi(Indira Gandhi);

Mumbai (Chhatrapati Shivaji); Chennai (Meenambakkam);

Kolkata (Netaji Subhash Chandra Bose) and Hyderabad (Rajiv Gandhi).

4. Write review of any one Movie/Book in almost 200 words in your Homework notebook.

*Suggested Movies (any one)-1.Gandhi, 2.Mangal Pandey:The Rising 3. Lagaan Alexander,4.Netaji Subhas Chandra Bose: The forgotten hero,5. Shaheed,6. Dr.Babasaheb Ambedkar, 7. Sardar, 8. The legend of Bhagat Singh, 9.Heroes & tyrants of the 20th century: Hitler, 10. Rang de Basanti

5. Assignment

Ch-2(His) , Nationalism in India

1.Name any two methods used by Gandhiji to fight against the Britishers.

2.What was theme of the book 'Hind Swaraj' a book written by Mahatma Gandhi?

3. Why was the Inland Emigration Act of 1859 troublesome for plantation workers?

4.Which incident marked the beginning of the Civil Disobedience Movement?

5. The picture of Bharat Mata is given below, drawn during National Movement.

(i) Name any two artists of the 20th century who created the Image.

(ii) What was the purpose of creating such images?

6.Mention any three efforts made by Gandhiji to get Harijans their rights?

7.Describe any two Satyagraha movements launched by Gandhi just after his return to India from South Africa.

8.Explain the impact of Non-cooperation Movement in the economic field.

9."Plantation workers had their own understanding of Mahatma Gandhi and the notion of Swaraj"

Support the statement.

10.How was the Civil Disobedience Movement different from Non-Cooperation Movement?

CH-1 Forest and Wildlife Resources

1. When was the Indian Wildlife Protection Act implemented?

2. What are permanent forests?

3. Local communities play an important role in conservation of forests and wildlife. Explain by giving two examples.

4. Write the categories of existence of various animals give in the following table:

Animals	Categories of Existence (Extinct, Rare, Endangered, Vulnerable and Endemic)
1. Bluck Buck	
2. Asiatic Elephant	
3. Andaman Wild Pig	
4. Himalayan Brown Bear	
5. Pink Headed Duck	

5. What is biodiversity? Why is biodiversity important for human lives?

6. Discuss the reasons for extinction of Asiatic Cheetah in India.

7. Explain the followings:

(a) Bheej Bachao Aandolan

(b) Chipko Movement

8. Distinguished between Reserved Forests, Protected Forests and Unclassed Forests.

9. What are the main objectives of JFM?

10. Explain any three measures taken by the Indian Government to protect wildlife.

Information Technology

Learn

Unit 2: Self Management Skills (Chapter 1,2),

Unit 3: ICT Skills,

Part B Unit 1: Digital Documentation(Styles)

Learn and write Q-Ans of ICT Skills on IT notebook

Make an Activity on A4 sheets on the topic Self Management Skills (Minimum 7-8 Pages)

.

1. भारत सरकार ने दो हजार का नोट बन्द करने की घोषणा की है। इस विषय पर अपने विचार 100–120 शब्दों मे लिखिए।

2. हरियाणा राज्य और मणिपुर राज्य के बीच कला, धर्म, संस्कृत, नृत्य, संगीत, पर्यटन आदि बिंदु के आधार पर तुलानात्मक अध्ययन कीजिए।

3. 'हरिहर काका' कहानी में समाज के किन कटु–सत्यों को उजागर किया गया है ?

4. आपके विद्यालय में छात्र–परिषद के चुनाव की घोषणा हुई है जिसमें आप भी किसी पद पर चुनाव के लिए उम्मीदवार हैं। इसकी सूचना देते हुए अपने मित्र को सूचना लेखन लिखें।

5. आपके शहर में एक संस्था आर्टिफिशियल इंटेलीजैंसी पर आधारित एक वर्कशॉप (कार्यशाला) आयोजित कर रही है। इसके लिए एक विज्ञापन तैयार कीजिए।

6. कक्षा मे कराए गए समग्र पाठ्यक्रम को याद कीजिए व उसका निरंतर अभ्यास कीजिए।