



ARMY PUBLIC SCHOOL RATNUCHAK
SESSION 2019-20
WORKSHEET

CLASS: IX

SUB: ENGLISH

Q1) Fill in the blanks with appropriate articles or determiners.

1. I am _____ oldest in my family.
2. I prefer _____ mountains to the seaside.
3. We went to _____ same school.
4. My brother is going out with _____ Chinese girl.
5. Have you got _____ matches?

Q 2) Sequence the following to form meaningful sentences:

1. (a) born/27 June/1880/Helen Keller/ in Tuscumbia/on/was
(b) full/ hearing/she/born/and/sight/was/with
(c) to/the/see/unabled/fever/hear/or/her/brain
2. (a) elephant/land animal/present/largest/is/day/the/of/the
(b) mild/peace loving/is/animal/it/a/and
(c) more easily/that is why/domesticated/be/can/and/it/trained
3. (a) Mother Teresa/greatest/missionaries/one of the/was/time/of/our
(b) dedicated/the poorest of the poor/entire life/she/to/her/the/service/of
(c) she/aportle/was/of/unwanted/the/an
4. (a) spread/healthy carriers/some/of/diseases/are/germs/
spread/by
(b) healthy person/germs/a/carry/may/of/in/body/typhoid/his/cholera/dysentery/etc.
(c) person/does not/such/usually/a/disease/suffer/the/from
5. (a) also/cultivate/they/asked them to/had to/those/which/crops/the English
(b) two flask-shaped bags/inside/for/it/storing/belly/its/has/water
(c) weigh up/elephant/an/to/can/5 tons
6. (a) phones/well/ones/near/keep/and/cell/connected/loved
(b) a/are/source/they/of/also/entertainment
(c) easily/convenient/accessible/they/and/are

Q3) The following passages have not been edited. There is an error in each line against a numeral is given. Write the incorrect word and the correction in the space provided. Remember to underline the word that you have supplied.

INCORRECT WORD CORRECT

WORD

<p>1. The International Monetary Fund maintain its forecast on weak global growth and warned that further stagnation did fuel more populist sentiment for trade and immigration that would stifled activity, productivity and innovation. In the late update of their Word Economic Outlook, the IMF said a dropped in US growth for 2016 is due too a weak first-half performance.</p>	<p><i>e.g.</i> maintain <u>maintained</u></p> <p>(a)</p> <p>(b)</p> <p>(c)</p> <p>(d)</p> <p>(e)</p> <p>(f)</p> <p>(g)</p> <p>(h)</p>
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Q4) Complete the given passage.

When the Spaniard answered he _____ (tell) me that their life _____ (be) so difficult that they _____ (will) do anything to escape. I _____ (suggest) that he should return to the mainland with Friday and _____ (discuss) the matter with his fellow countrymen. If they _____ (be) willing to come to the island they _____ (can) return with him in the large canoe.

The Spaniard _____ (thank) me for my offer, but _____ (ask) whether we _____ (have) at present enough food upon the island to feed his companions as well as ourselves. This _____ (be) a problem that I _____ (have) not thought of, and I could see that we would need to grow far more grain if we _____ (be) to have so many people upon the island.

Q5) Complete the following sentences using appropriate passive voice forms of the verbs given in brackets.

1. I _____ by his attitude. (shock - use past tense)
2. All the trouble _____ by that little girl. (cause- use past tense)
3. The positive hydrogen atom _____ to the negative oxygen atoms. (attract- use present tense)
4. We _____ a collection of old manuscripts. (show- use past tense)
5. I think your ankle _____ (break- use present tense)

Q6) Complete the following sentences using appropriate phrasal verbs.

1. He turned ----- to be a gangster. (out / off / on)
2. He worked ----- the problem in a few minutes. (on / out / up)
3. He knows how to work ----- the mob. (out / up / on)
4. He had promised to come, but he didn't turn ----- (out / up / off)
5. His own friends and family turned ----- him. (out / against / off)

Q7) Complete the passage given below choosing the correct alternatives:

Passenger aeroplane mostly fly (a) _____ speeds less than that (b) _____ stand, although aeroplanes (c) _____ can fly (d) _____ supersonic speeds have been built. This is (e) _____ if they fly (f) _____ speeds greater than the speed of sound.

- a. i) with ii) at iii) on iv) by
- b. i) from ii) of iii) around iv) with
- c. i) which ii) when iii) what iv) whose
- d. i) on ii) over iii) at iv) in
- e. i) scenery ii) seen iii) scene iv) seeing
- f. i) by ii) on iii) at iv) with

Q8) Change the form of the narration:

1. "Where are you going?" said Swami's father.
2. "Where were you at this time," his father said to him.
3. "Should I read even when I have no school?" said Swami.
4. "Look Sharp," father said to Swami.
5. "Do you want a whole day to throw out the spider?" father asked.



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CLASS: IX

SUB: MATHEMATICS

Q1. Find four rational numbers between $-\frac{2}{3}$ and $\frac{1}{4}$.

Q2. Express each of the following decimals in form $\frac{p}{q}$:

(a) $4.3\overline{6}$ (b) $0.003\overline{54}$

Q3. Represent $\sqrt{6}$, $\sqrt{7}$ on number line. (Hint: Firstly locate $\sqrt{5}$ on number line and with its help locate $\sqrt{6}$ and hence $\sqrt{7}$)

Q4. Represent $\sqrt{10.5}$ on number line.

Q5. Find the values of:

(a) $\left(\frac{25}{81}\right)^{1/2}$ (b) $\left(\frac{27}{343}\right)^{1/3}$

Q6. Rationalise the denominator and simplify:

(a) $\frac{2\sqrt{6}-\sqrt{5}}{3\sqrt{5}-2\sqrt{6}}$ (b) $\frac{5+2\sqrt{3}}{7+4\sqrt{3}}$

Q7. If both a and b are rational numbers, find the values of a and b in each of the following:

(a) $\frac{\sqrt{3}-1}{\sqrt{3}+1} = a - b\sqrt{3}$ (b) $\frac{4+\sqrt{2}}{2+\sqrt{2}} = a - \sqrt{b}$

Q8. Find the value of k , if $x - 3$ is a factor of $k^2x^3 - kx^2 + 3kx - k$.

Q9. Using remainder theorem, find remainder when $f(x)$ is divided by $g(x)$:

(a) $f(x) = 9x^3 - 3x^2 + x - 5$, $g(x) = x - \frac{2}{3}$
(b) $f(x) = x^3 - 6x^2 + 2x - 4$, $g(x) = 1 - 2x$

Q10. Using factor theorem, factorize each of the following polynomials:

(a) $3x^3 - x^2 - 3x + 1$
(b) $y^3 - 2y^2 - 29y - 42$

Q11. Factorize $x^3 + 13x^2 + 31x - 45$ given that $x + 9$ is a factor.

Q12. If $x + \frac{1}{x} = 11$, find the value of $x^2 + \frac{1}{x^2}$ and $x^3 + \frac{1}{x^3}$.

Q13. If $a + b + c = 9$ and $ab + bc + ca = 23$, find the value of $a^2 + b^2 + c^2$.

Q14. Simplify:

(a) $(2x + p - c)^2 - (2x - p + c)^2$
(b) $(2x - 5y)^3 - (2x + 5y)^3$

Q15. Find the product:

$(3x - 4y + 5z)(9x^2 + 16y^2 + 25z^2 + 12xy - 15zx + 20yz)$



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CLASS: IX

SUB: SCIENCE

MATTER IN OUR SURROUNDINGS

1 Mark Questions

1. Pressure on the surface of a gas is increased. What will happen to the inter particle forces?
2. Name the three states of matter.
3. What happens when a liquid is heated ?
4. A gas can exert pressure on the walls of the container. Assign reason.
5. Convert the following temperature to Kelvin Scale (a) 100°C (b) -100 C
6. What is meant by density?
7. Give the characteristics of the particles of matter.
8. Water droplets seen on the outer surface of a glass containing ice-cold water is due to _____ .
9. Change of gaseous state directly to solid state without going through liquid state is called _____ .
10. _____ is a surface phenomenon.

2 Marks Questions

1. Define Latent heat of vaporisation.
2. Explain why temperature remain constant during the change of state of any substance?
3. Define Sublimation with examples.
4. Do we sweat more on a dry day or humid day ? Justify your reason.
5. Why do we see water droplets on the outer surface of a glass containing ice cold water?
6. Convert the following temperature to the CELCIUS scale (a) 25K (b) 373K
7. List two properties that liquids have in common with solids.
8. List two properties that liquids have in common with gases.
9. What will happen to the melting point temperature of ice if some common salt is added to it? Justify your answer.
10. How will you show that air has maximum compressibility?

3 Marks Questions

1. Define the term (a) Latent heat of fusion (b) Latent heat of vaporization

2. State the effect of (i) surface area (ii) nature of the liquid on the rate of evaporation.

3. Liquids generally have lower density as compared to solids. But you must have observed that ice floats on water. Why?

4. What is the physical state of water at 250°C, 100°C, 0°C?

5. Give reasons : i) A sponge can be pressed easily; still it is called a solid.

ii) Water vapours have more energy than water at same temperature.

6. What are intermolecular forces ? How are these related to the three states of matter ?

7. Is it possible to liquify atmospheric gases? If yes, suggest a method.

5 marks Questions:

1. a) What is meant by evaporation? What are the factors on which the rate of evaporation depend upon?

b) How does evaporation causes cooling?

2. State the properties of all the five states of matter.

3. Define : Melting point , Freezing point & Boiling point

PHYSICS **CHAPTER – MOTION**

1) Under what conditions is the magnitude of average velocity of an object equal to its average speed?

2) What can you say about motion of an object whose distance time graph is a straight line parallel to the time axis?

3) What is the quantity which is measured by the area occupied below velocity-time graph?

4) Draw a velocity –time graph of a stone thrown vertically upwards and then coming downwards after attaining the maximum height.

5) What is the numerical ratio of average velocity to average speed of an object when it is moving along a straight path?

6) What can you say about motion of an object if its speed-time graph is a straight line parallel to the time axis?

7) A car moves with a speed of 30km/h for half an hour, 25km/h for one hour and 40km/h for two hours. Calculate the average speed of the car.

8) A marble rolling on a smooth floor has an initial velocity of 0.4m/s. If the floor offers a retardation of .02m/s², calculate the time it will take to come to rest.

9) A train starting from a railway station and moving with a uniform acceleration attains a speed of 40km/h in 10 minutes. Find its acceleration in m/s² .

10) A train 100m long is to cross a river of bridge of length 800m. What time will it take to cross the bridge? The train moves with a constant velocity of 36km/h.

11) Q In the following velocity time graph calculates:

(i) Distance travelled by the body.

(ii) Acceleration of the body during A to B, B to C, C to D

BIOLOGY

Q1: A drop of ink is placed gently at the base of a beaker containing water by means of a dropper. What will happen?

Q2: Why do dry apricot placed in salt solution do not swell while they do so when kept in water?

Q3: How do substances like CO₂ and H₂O move in and out of the cell?

Q4: Why is plasma membrane known as selectively permeable membrane?

Q5: Put a drop of blood in three type of liquids:

a. Pure water b. Salt solution c. Water containing 5M glucose and 0.9% NaCl

What will happen to the blood drop and why? Explain your answer

Q6: Why is endocytosis found in animals only?

Q7: If you are provided with some vegetables to cook, you generally add salt into vegetables during cooking process. After adding salt, vegetables release water. What mechanism is responsible for this?

Q8: Why lysosomes are known as suicidal bags?

Q9: How are chromatin and chromosomes are related to each other?

Q10: Differentiate between diffusion and osmosis.

Q11: What do you understand by semi-autonomous bodies? Give examples also

Q12: Define membrane biogenesis. Where lipids and proteins, constituting the plasma membrane, do get synthesized?

Q13: What are genes? Where are they located in the cell?

Q14: What for ATP stands for? Which organelle is the power plant of eukaryotic cell? Write in brief its function.



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SUB: SSC

1. What Role Did Louis XVI Play In Bringing About The Revolution?
2. Explain the term Society of Estate.
3. How did France become a constitutional monarchy/
4. Write a short note on the "Reign of Terror".
5. What is the total geographical area of India?
6. Which ocean is named after India?
7. What is the difference between IST and GMT?
8. Discuss The Merit Of Democracy.
9. Explain The Main Challenges T Democracy.
10. Distinguish Between Direct And Indirect Democracy.
11. Explain Any Two Principles Of Democracy.
12. What are the items that come under physical capital?
13. Describe the work of a farmer with 1 hectare of land.
14. Mention any five non-farm activities of Palampur.
15. Why are farm labourers poor?