

MOUNT COLUMBUS SCHOOL

DAKSHINPURI, NEW DELHI – 62

CLASS IX

WORKSHEET (JULY)

ENGLISH

Q-1. Read the extracts and answer the questions that follow.

“Has a snake ever coiled itself round any part of your body? A full-blooded cobra?” All of us fell silent. The question came from the homeopath. The topic came up when we were discussing snakes. We listened attentively as the doctor continued with his tale. It was a hot summer night; about ten o’clock. I had my meal at the restaurant and returned to my room. I heard a noise from above as I opened the door. The sound was a familiar one. One could say that the rats and I shared the room. I took out my box of matches and lighted the kerosene lamp on the table.”

- a. When the narrator entered the room, what noise did he hear?
- b. Why does the narrator claim that the sound was familiar?
- c. “Has a snake ever coiled itself round any part of your body? A full-blooded cobra?” Who asked this question?
- d. What did the narrator do when he came to his room?

Q-2. Answer the following questions in 30-40 words each.

- a. By now you may have concluded that Innisfree is a simple, natural place, full of beauty and peace. How does the poet contrast it with where he now stands?
- b. Why did the Guru want that he and his disciple should die first?
- c. Did Mahendra really see the ghost?

Q-3. Describe a natural wonder that you have seen. What was so amazing about it? How did it make you feel?

हिंदी

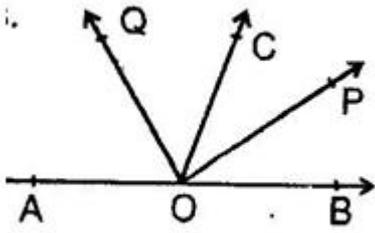
1. हिमपात किस तरह होता है और उससे क्या-क्या परिवर्तन आते हैं ?
2. लेखिका के तंबू में गिरे बर्फ पिंड का वर्णन किस तरह किया गया है?
3. 'तुम कब जाओगे, अतिथि' व्यंग्य पर आधारित एक कहानी है। इस पाठ के माध्यम से लेखक क्या संदेश देना चाहते हैं?
4. अतिथि के अधिक दिनों तक टिके रहने पर लेखक के व्यवहार में क्या-क्या परिवर्तन आए?
5. रहीम के नीतिपरक, दोहे सरल, स्वाभाविक और दृष्टांतों से युक्त हैं। इस कथन के आलोक में रहीम के दोहों की विशेषताएं लिखिए।
6. 'निज मन की विदाई, मन ही राखो गोय' कहकर कवि ने क्या शिक्षा दी है?
7. मनुष्य को प्रकृति किस रूप में आंदोलित करती है? अपने शब्दों में लिखिए।
8. बचपन में लेखक को किस वस्तु से अधिक मोह था और क्यों?
9. लेखक किसके आदेश से छोटे भाई के साथ मक्खनपुर की ओर रवाना हुए और क्यों?
10. गांव में चार फलांग की दूरी पर कच्चे कुएं के पास पहुंचकर कौन -सी दुर्घटना घटी? 'स्मृति' पाठ के आधार पर वर्णन करें।
11. गृहकार्य नहीं करने पर अध्यापक और विद्यार्थी के मध्य होने वाली बातचीत को लगभग 100 शब्दों में संवाद के रूप में लिखिए।
12. अपने चाचा जी के जन्मदिन पर उन्हें बधाई देते हुए आदर भाव से परिपूर्ण लगभग 100 शब्दों में एक पत्र लिखिए।
13. निम्नलिखित शब्दों का संधि विग्रह कर संधि का नाम लिखिए।
सूर्योदय, परीक्षा, अत्याचार परमेश्वर, पावन, सत्याग्रह, अत्यधिक, नायक, अन्वेषक, महौज
14. अर्थ के आधार पर वाक्य के भेद लिखिए।
क) परिश्रम का फल मीठा होता है।
ख) अगर वह जाएगा, तो मैं चला जाऊंगा।
ग) बच्चे कक्षा में शोर मचा रहे थे।
घ) रजनीगंधा के फूलों की सुगंध से कैमरा महक रहा है।
15. 'योग दिवस' विषय पर 100 शब्दों में अनुच्छेद लिखिए।

Mathematics

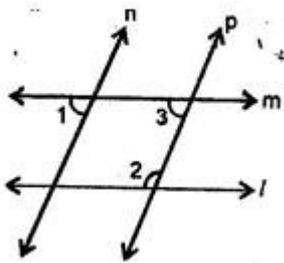
Q1. Two supplementary angles are in ratio 4 : 5, then find the measure of each angle.

Q2. If an angle differs from its complement by 10° , find the larger angle.

Q3. In the given figure, OP and OQ bisect $\angle BOC$ and $\angle AOC$ respectively, then $\angle POQ$ is.



Q4. In the given fig if $l \parallel m$, $n \parallel p$ and $\angle 1 = 85^\circ$ then $\angle 2$ is



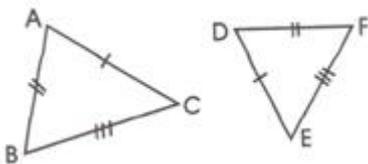
Q5. A larger angle is 14° more than its complementary angle then find the other angle .

Q6. X lies in interior of $\angle BAC$. If $\angle BAC = 70^\circ$ and $\angle BAX = 42^\circ$ then find $\angle XAC = ?$

Q7. If D is the point on the side BC of a $\triangle ABC$ then

- a. $AB+BC+CA > 2AD$
- b. $AB+BC+CA < 2AD$
- c. $AB+BC+CA > 3AD$
- d. None of these

Q8. For the given figure which one is correct:



- a. $\triangle ABC \cong \triangle DEF$
- b. $\triangle ABC \cong \triangle FED$
- c. $\triangle ABC \cong \triangle DFE$
- d. $\triangle ABC \cong \triangle EDF$

In the following questions 9 and 10, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

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

Q9. Assertion (A): In $\triangle ABC$ and $\triangle PQR$, $AB = PQ$, $AC = PR$ and $\angle BAC = \angle QPR$, $\triangle ABC \cong \triangle PQR$.
Reason (R): Both the triangles are congruent by SSS congruence.

Q10. Assertion (A): Each angle of an equilateral triangle is 60° .
Reason (R): Angles opposite to equal sides of a triangle are equal.

SCIENCE

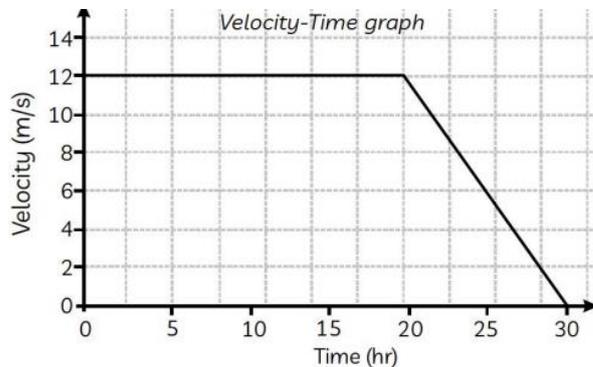
1. Name the cations and anions in the following :
a. NH_4Cl b) MgO c) Na_2SO_4 d) CaCO_3 e) $\text{K}_4[\text{Fe}(\text{CN})_6]$ f) NaOH g) AlCl_3 h) $\text{Cu}(\text{NO}_3)_2$

2. Write correct formulae using given ions.

anions	SO_4^{2-}	Cl^-	PO_4^{3-}	O^{2-}	CO_3^{2-}	OH^-	S^{2-}
cations							
Na^+							
Cu^{++}							
Al^{3+}							

3. Name the elements present in the following: (a) Water (b) ammonia (c) sulphur dioxide
4. State the law of constant proportions.
5. Explain the difference between 2N and N_2
6. Draw a velocity-time graph for an object in uniform motion. Show that the slope of velocity time-graph gives acceleration of the body.
7. Read the following information and answer the questions based on information and related studied concepts.

Ritesh was driving car to his office. When suddenly a boy came in between the road, he applied brakes suddenly to save the child and the car came to the rest. The whole scenario was observed by Sita and she draws the velocity-time graph regarding the situation.



- (a) Calculate the displacement of the car after 20 seconds?
(b) After deceleration, how far does the car go?
(c) Describe the motion of the car from 0 s to 30 s.
8. Why is Newton's first law of motion also called law of inertia?
9. What should be the value of F in the following, to balance the effect of F_1 and F_2 ?
10. A stone released from the top of a tower of height 19.6 m. Calculate its final velocity just before touching the ground. (Take $g = 9.8 \text{ m/s}^2$)

SOCIAL SCIENCE

Section A: Fill in the Blanks

1. The _____ river originates from the Gangotri glacier.
2. Poverty line is defined in terms of _____.
3. _____ is considered the most important resource of a country.
4. The _____ provides 100 days of employment to rural families.
5. _____ and _____ are major east-flowing rivers in Peninsular India.
6. The calorie requirement for rural poverty line is _____ calories per day.
7. The river _____ flows westward and drains into the Arabian Sea.
8. Health and education are investments in _____.

Section B: Multiple Choice Questions (MCQs)

1. Which river is a tributary of the Ganga?
a) Yamuna b) Narmada c) Godavari d) Mahanadi
2. Human capital formation includes:
a) Transport b) Skill training and education c) Raw materials d) Land
3. Which state has the highest poverty ratio in India?
a) Kerala b) Bihar c) Punjab d) Gujarat
4. The Brahmaputra originates from:
a) India b) China c) Nepal d) Bhutan
5. Which of the following is a market activity?
a) Cooking by housewives b) Labour by a farmer in his own field c) Doctor treating patients in a hospital d) Helping siblings with homework

Section C: True or False

1. The Ganga-Brahmaputra basin is a part of the peninsular drainage system. ____
2. Unemployment leads to wastage of human capital. ____
3. Narmada and Tapi are west-flowing rivers. ____
4. Only rural areas face poverty-related challenges. ____
5. Economic activities performed for self-consumption are called non-market activities. ____

Section D: Very Short Answer Questions

1. Define poverty.
2. What is meant by human capital?
3. Name any two major rivers of the Northern Plains.

4. What is disguised unemployment?
5. Name two major causes of poverty in India.
6. What is a drainage basin?
7. What do you mean by market activities?

Section E: Short Answer Questions

1. How does poverty affect human capital formation?
2. Write any three differences between Himalayan rivers and Peninsular rivers.
3. How does education improve productivity?
4. Mention the steps taken by the Indian government to reduce poverty.
5. Explain the difference between seasonal and disguised unemployment.

Section F: Map Work

Mark and label the following rivers on a blank outline map of India:

1. Ganga River
2. Brahmaputra River
3. Yamuna River
4. Narmada River
5. Godavari River
6. Mahanadi River
7. Indus River

INFORMATION TECHNOLOGY

Section A: Multiple Choice Questions

Choose the correct option and write it in the space provided.

1. Which of the following is NOT a part of ergonomic practices?
 - a) Maintaining a correct posture
 - b) Sitting with bent back
 - c) Using proper lighting
 - d) Taking regular breaks
2. Which method is used for typing without looking at the keyboard?
 - a) Manual method
 - b) Sight typing
 - c) Touch typing
 - d) Eye typing
3. What is the ideal sitting posture while typing?
 - a) Slouched back
 - b) Legs crossed
 - c) Straight back and both feet flat on the floor
 - d) Standing upright
4. What does WPM stand for in typing speed?
 - a) Words per Minute
 - b) Windows per Minute
 - c) Work per Method
 - d) WordPress Management
5. Which finger is used to press the Spacebar?
 - a) Index finger
 - b) Thumb
 - c) Ring finger
 - d) Middle finger

Section B: Very Short Answer Questions

Answer the following in 1–2 sentences.

1. What is touch typing?
2. Name any two typing tutor software.
3. Why is ergonomic sitting posture important?
4. What is the ideal position of the monitor while typing?
5. List any two guidelines for good keyboarding habits.

ARTIFICIAL INTELLIGENCE

A. Multiple Choice Questions (MCQs)

1. Which of the following is the FIRST stage in the AI Project Cycle?

- a) Data Acquisition
- b) Modelling
- c) Problem Scoping
- d) Evaluation

2. The "What" aspect of the 4Ws Problem Canvas primarily helps in understanding:

- a) Who is affected by the problem.
- b) The nature of the problem and evidence of its existence.
- c) Where and when the problem occurs.
- d) Why the problem needs to be solved.

3. Data that is used to teach the AI model to learn patterns and relationships is known as:

- a) Testing Data
- b) Raw Data
- c) Training Data
- d) Output Data

4. Which stage of the AI Project Cycle involves visualizing data using graphs and charts to identify patterns?

- a) Problem Scoping
- b) Data Acquisition
- c) Data Exploration
- d) Evaluation

5. The primary purpose of the Evaluation stage in the AI Project Cycle is to:

- a) Collect more data for the project.
- b) Identify new problems to solve.
- c) Assess the model's performance and efficiency.
- d) Deploy the model to real-world users.

B. Short Answer Questions

1. Explain the main purpose of the "Problem Scoping" stage in the AI Project Cycle.
2. In the 4Ws Problem Canvas, what is the significance of asking "Why" when defining a problem?
3. Differentiate between "Training Data" and "Testing Data" in the context of an AI project.
4. Name any two common methods or tools used during the "Data Exploration" stage to understand the collected data.
5. Why is it important to perform the "Evaluation" stage before deploying an AI model?