

**MOUNT COLUMBUS SCHOOL
DAKSHINPURI, NEW DELHI – 62**

ENGLISH

CLASS IX WORKSHEET (JANUARY)

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

- 1. Briefly describe Gerrard's appearance.**
- 2. How did Gerrard behave on seeing a gun-toting stranger in his cottage?**
- 3. What impression do you form of the Intruder as he comes in? Give examples to illustrate.**
- 4. You'll soon stop being smart." Why did Intruder think that Gerrard was being smart?**
- 5. Who moved into another house?**
 - (a) Lushkoff**
 - (b) Olga**
 - (c) Sergei**
 - (d) none of the above**
- 6. Who was Olga?**
 - (a) a beggar**
 - (b) Sergei's cook**
 - (c) an advocate**
 - (d) a wood chopper**
- 7. How was the beggar earning money?**
 - (a) by telling false stories**
 - (b) by telling lies**
 - (c) by rousing sympathy in the listeners**
 - (d) all**
- 8. Why was Sergei disgusted with the beggar?**
- 9. How do we know that the beggar had no previous experience of cutting wood?**

HINDI

निम्नलिखित प्रश्नों के उत्तर दीजिए

1. बुढ़िया के बेटे की मृत्यु से उसे जान और माल दोनों की हानि हुई। 'दुख का अधिकार' पाठ के आधार पर स्पष्ट कीजिए
2. देश को वैज्ञानिक दृष्टि और चिंतन प्रदान करने में सर चंद्रशेखर वेंकट रामन् के महत्त्वपूर्ण योगदान पर प्रकाश डालिए।
3. सर चंद्रशेखर वेंकट रामन् के जीवन से प्राप्त होने वाले संदेश को अपने शब्दों में लिखिए।
4. उन पत्रों को देख-देखकर दिल्ली और शिमला में बैठे वायसराय लम्बी साँस-उसाँस लेने लगते थे। शुक्र तारे के समान पाठ के आधार पर आशय स्पष्ट कीजिए।
5. बुढ़िया की उस विवशता का उल्लेख कीजिए जिसके कारण उसे सूतक में भी खरबूजे बेचने आना पड़ा?
6. 'महादेव भाई देश और दुनिया को मुग्ध करके शुक्रतारे की तरह अचानक अस्त हो गए' - आशय स्पष्ट कीजिए।
7. पठित पद के आधार पर स्पष्ट कीजिए कि रैदास की उनके प्रभु के साथ अटूट संबंध हैं।
8. कवि रैदास ने 'हरिजीउ' किसे कहा है? काव्यांश के आधार पर 'हरिजीउ' की विशेषताएँ लिखिए।
9. आज की परिस्थितियों में रहीम के दोहे कितने प्रासंगिक हैं? किन्हीं दो उदाहरणों के माध्यम से स्पष्ट कीजिए।
10. रहीम ने अपने दोहों में छोटी वस्तुओं का महत्त्व प्रतिपादित किया है। इसे सोदाहरण स्पष्ट कीजिए।
11. पठित दोहे के आधार पर बताइए कि आप तालाब के जल को श्रेष्ठ मानते हैं या सागर के जल को और क्यों?
12. मनुष्य को प्रकृति किस रूप में आंदोलित करती है? अपने शब्दों में लिखिए।
13. 'गीत-अगीत' कविता में अगीत का चित्रण कवि द्वारा किस तरह किया गया है, स्पष्ट कीजिए।
14. अगरबत्तियाँ बनाने वाले बाल मज़दूरों के जीवन में सुधार लाने हेतु कुछ सुझाव दीजिए।
15. 'रैदास' ने अपने दूसरे पद में कवि ने 'गरीब निवाजु' किसे कहा है? स्पष्ट कीजिए।
16. हमें अपना दुख दूसरों पर क्यों नहीं प्रकट करना चाहिए? अपने मन की व्यथा दूसरों से कहने पर उनका व्यवहार कैसा हो जाता है?
17. रहिमान देखि बड़ेन को ... दोहे में मनुष्य को क्या संदेश दिया गया है? इसके लिए उन्होंने किस उदाहरण का सहारा लिया है?
18. अग्नि पथ' कविता थके-हारे निराश मन को उत्साह एवं प्रेरणा से भर देती है। स्पष्ट कीजिए।
19. लेखिका को जीव-जंतुओं की संवेदनाओं की सूक्ष्म समझ थी। इसे स्पष्ट करते हुए बताइए कि आपको इनसे किन किन मूल्यों को अपनाने की सीख मिलती है?
20. लेखक ने किस तरह अत्यंत सूझ-बूझ से अपनी जिम्मेदारी का निर्वाह किया? 'स्मृति' पाठ के आलोक में स्पष्ट कीजिए। इससे आपको क्या सीख मिलती है?
21. 'कल्लू कुम्हार की उनाकोटी' पाठ के आधार पर गंगावतरण की कथा का उल्लेख कीजिए और बताइए कि ऐसे स्थलों की यात्रा करते समय हमें किन-किन बातों का ध्यान रखना चाहिए?
22. लेखक को ऐसा क्यों लगा कि त्रिपुरा स्वच्छता के नाम पर उत्तर भारतीय गाँवों से अलग है? इससे आपको क्या प्रेरणा मिलती है?
23. लेखक ने अपने पिता से किया हुआ वायदा किस तरह निभाया? इससे आपको क्या सीख मिलती है?
24. लेखिका ने लघु जीव की जान किस तरह बचाई? उसके इस कार्य से आपको क्या प्रेरणा मिलती है?
25. लेखक चिट्ठियों के बारे में घर जाकर झूठ भी बोल सकता था, पर उसने ऐसा नहीं किया। इसके आलोक में लेखक की चारित्रिक विशेषताओं पर प्रकाश डालते हुए बताइए कि आप लेखक के चरित्र से किन-किन विशेषताओं को अपनाना चाहेंगे?
26. कुँए से चिट्ठियाँ निकालने में उसके भाई का कितना योगदान था? इससे लेखक के चरित्र में किन-किन जीवन मूल्यों की झलक मिलती है?
27. लेखक ने किस तरह अत्यंत सूझ-बूझ से अपनी जिम्मेदारी का निर्वाह किया? 'स्मृति' पाठ के आलोक में स्पष्ट कीजिए। इससे आपको क्या सीख मिलती है?
28. 'मेरा छोटा-सा निजी पुस्तकालय' पाठ से आज के विद्यार्थियों को क्या प्रेरणा लेनी चाहिए?
29. दूसरे दिन अतिथि के न जाने पर लेखक और उसकी पत्नी का व्यवहार किस तरह बदलने लगता है?
30. बुढ़िया के बेटे की मृत्यु से उसे जान और माल दोनों की हानि हुई। 'दुख का अधिकार' पाठ के आधार पर स्पष्ट कीजिए।

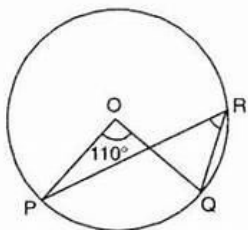
MATHEMATICS

Q1. A, B, and C are the three points on any circle. Prove that perpendicular bisectors of AB, BC, and CA are concurrent.

Q2. Prove that the circle drawn with any side of a rhombus as diameter passes through the point of intersection of its diagonals.

Q3. Two chords AB and CD of lengths 5 cm and 11 cm respectively of a circle are parallel to each other and are on opposite sides of its centre. If the distance between AB and CD is 6, find the radius of the circle.

Q4. In the given figure, if O is the centre of circle and $\angle POQ = 110^\circ$, then find $\angle PRQ$.

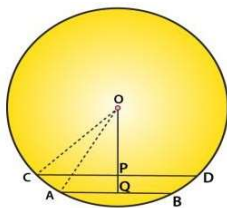


Q5. Write the truth value (T/F) of the following with suitable reasons:

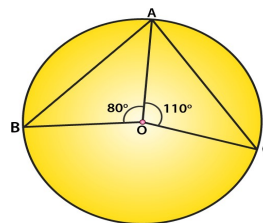
- (i) A circle is a plane figure.
- (ii) Line segment joining the centre to any point on the circle is a radius of the circle,
- (iii) If a circle is divided into three equal arcs each is a major arc.
- (iv) A circle has only finite number of equal chords.
- (v) A chord of a circle, which is twice as long as its radius is the diameter of the circle.
- (vi) Sector is the region between the chord and its corresponding arc.
- (vii) The degree measure of an arc is the complement of the central angle containing the arc.
- (viii) The degree measure of a semi-circle is 180° .

Q6. Find the length of a chord which is at a distance of 4 cm from the centre of a circle of radius 6 cm.

Q7. Two chords AB, CD of lengths 5 cm, 11 cm respectively of a circle are parallel. If the distance between AB and CD is 3 cm, find the radius of the circle.



Q8. In figure, O is the centre of the circle. Find $\angle BAC$.



SCIENCE

1. If the mass of a body is 9.8 kg on the earth, what would be its mass on the moon?
2. Why does a body reach the ground quicker at poles than at the equator when dropped from the same height?
3. Give three differences between acceleration due to gravity (g) and universal gravitational constant (G).
4. A force of 20 N acts upon a body whose weight is 9.8 N. What is the mass of the body and how much is its acceleration? Take $g = 9.8 \text{ m/s}^2$.
5. A stone dropped from the roof of a building takes 4s to reach the ground. Calculate the height of the building.
6. What will happen to the gravitational force between two bodies if the masses of one body is doubled?
7. Why does a block of plastic released under water come up to the surface of water?
8. Look at the activities listed below. Reason out whether or not work is done in the light of your understanding of the term 'work'.
 - (a) Suma is swimming in a pond.
 - (b) A wind mill is lifting water from a well.
 - (c) An engine is pulling a train.
 - (d) Food grains are getting dried in the sun.
 - (e) A sailboat is moving due to wind energy.
9. An object of mass 40 kg is raised to a height of 5 m above the ground. What is its potential energy?
10. . What is the work done by the force of gravity on a satellite moving round the earth? Justify your answer.
11. Calculate the work required to be done to stop a car of 1500 kg moving at a velocity of 60 km/h.
12. Draw a sketch of Bohr's model of an atom with three shells.
13. Carbon atom has an atomic mass of 12 u and 6 protons in its nucleus. How many neutrons does it have?
14. How will you find the valency of nitrogen, neon and aluminium?
15. An element 'A' has valency +3, while another element 'B' has valency -2. Give the formula of their compound formed when 'A' reacts with 'B'.

SOCIAL SCIENCE

1. Where was the International War Tribunal set up?
(a) Vienna (b) Munich (c) Nuremberg (d) Auschwitz
2. Which of the following thinkers were Hitler's ideas of racism based on?
(a) Aristotle (b) Plato (c) Charles Darwin (d) Roget de L'Isle
3. Name the person who attacked on Poland in September 1939.
(a) Alexander (b) Napoleon (c) Hitler (d) Louis XVI
4. When did Hitler try to seize control of Bavaria and capture Berlin?
(a) 1919 (b) 1923 (c) 1929 (d) 1933
5. When did Hitler join German Worker's Party?
(a) 1918 (b) 1919 (c) 1920 (d) 1921
6. The Nazi Party became the largest party by?
(a) 1930 (b) 1931 (c) 1932 (d) 1933
7. Who among the following was assigned the responsibility of economic recovery by Hitler?
(a) Goebbels (b) Hindenburg (c) Hjalmar Schacht (d) Adam Smith
8. The Great Depression was a period of –
(a) Political crisis (b) Social crisis (c) Global crisis (d) Economic crisis
9. Hitler took over the German Workers' Party and renamed it as _____.
(a) Secular German Workers (b) Socialist Workers of Germany (c) National Socialist German Workers' Party (d) National Workers of Germany
10. What was the name given to gas chambers by Nazis? ()
a) Killing Machine (b) Solution Areas (c) Revolutionary Ground (d) Disinfection Areas
11. What was 'Dawes Plan'?
(a) A plan secure loans from US bankers (b) A plan to ease reparation terms on Germany
(c) A plan to overtake Rhineland mines (d) An extension of Versailles treaty
12. Who was the propaganda minister of Hitler?
(a) Hjalmar Schacht (b) Hindenburg (c) Goebbels (d) Helmuth

Q.2. Short Answer Type Questions: Answer these questions in about 80 words each.

- 2.1. State any three ideology of the Nazi party.
- 2.2. How did the common people react to Nazi's crime against humanity? Elaborate your answer by giving three suitable examples.
- 2.3. What were the reasons for the rise of Nazism in Germany?
- 2.4. What do you mean by hyper-inflation in Germany? What were its causes?
- 2.5. What was the impact of the defeat of Imperial Germany on its polity?

Q.3. Long Answer Type Questions: Answer these questions in about 120 words each.

- 3.1. How did the world come to know about the 'Nazi holocaust'? Explain.
- 3.2. Write briefly on the Art of Propaganda in Nazi Germany with special emphasis on the role of media.
- 3.3. Describe the various youth organisations to train the youth of Germany.
- 3.4. How did the US come to the rescue of Germany at the time of the financial crisis?
- 3.5. In what ways did the Nazi state seek to establish total control over its people?

ARTIFICIAL INTELLIGENCE

Multiple Choice Questions:

1. What is the primary goal of sustainable development?

- a) Economic growth at any cost
- b) Meeting the needs of the present without compromising the ability of future generations to meet their own needs
- c) Exploiting natural resources for maximum profit
- d) Ignoring environmental concerns

2. Which activity helps reduce carbon footprint?

- a) Driving a personal vehicle everywhere
- b) Using energy-efficient appliances
- c) Burning fossil fuels excessively
- d) Leaving lights on when not in use

3. Which of these is an example of renewable energy?

- a) Coal
- b) Natural Gas
- c) Solar Power
- d) Oil

4. What does statistics primarily help AI with?

- a) Designing user interfaces
- b) Understanding and interpreting data
- c) Generating creative content
- d) Controlling robots

5. Probability helps AI in:

- a) Making exact predictions
- b) Handling uncertainty and making informed decisions
- c) Storing large amounts of data
- d) Communicating with humans

6. Which of these is an example of AI using probability?

- a) A calculator performing arithmetic operations
- b) A weather app predicting the chance of rain
- c) A word processor checking spelling
- d) A video game rendering graphics

7. What does the mean of a dataset represent?

- a) The most frequent value
- b) The middle value
- c) The average value
- d) The range of values

8. If the probability of an event is 0.3, what is the probability of the event not happening?

a) 0.3

b) 0.7

c) 1

d) 0

9. Which statistical measure describes the spread or dispersion of data?

a) Mean

b) Median

c) Standard Deviation

d) Mode

10. AI algorithms often use mathematical functions to learn from data. These functions are often related to:

a) Music theory

b) Optimization

c) Cooking recipes

d) Historical events

Short Answer Questions:

1. Describe two ways in which a school can promote green practices.
2. What are the potential consequences of climate change? Mention at least three.
3. Discuss the role of technology in promoting environmental sustainability. Provide one example.
4. Explain how statistics is used in a spam email filter. Give a specific example.
5. Give a real-world example of AI using probability to make predictions (different from the weather app example in the MCQs).

INFORMATION TECHNOLOGY

Q1. List the possible multimedia contents that are included while creating a presentation.

Q2. What are the five views of presentation?

Q3. What is the default name of the worksheet? How can it be renamed?

Q4. Can you include more than one mathematical operators in a formula?

Q5. What do you understand by Guide Keys? Name the Guide keys of a

(a) computer keyboard

(b) typewriter

Q6. Differentiate between Home Keys and Guide Keys

Q7. Discuss the various types of keys available on a computer keyboard.

Q8. Give examples of use of IT in everyday life

Q9. Which are the different areas of healthcare where IT is used? And how?

Q10. Explain the different views to display a document.