Atomic Energy Central School No. 4 Rawatbhata

Class 09 - Mathematics
Periodic Test - I (2019-20)

Maximum Marks: 40   **Time Allowed: 1 hour and 30 minutes**

General Instructions:

Note: All questions are compulsory.

Section A

1. If 'm' is a positive integer which is not a perfect square, then $\sqrt{m}$ is   **1**

    a) an irrational number   b) a natural number

    c) an integer   d) a rational number

2. Every rational number is   **1**

    a) an integer   b) a real number

    c) a natural number   d) a whole number

3. Which of the following polynomials has (-3) as a zero?   **1**

    a) $x^2 - 3x$ b) (x − 3)

    c) $x^2 - 9$ d) $x^2 + 3$

4. The point (7, 0) lies   **1**

    a) on the positive direction of y-   b) on the positive direction of x-
    axis   axis

    c) in quadrant IV   d) in quadrant II

5. The point which lies on y-axis at a distance of 6 units in the positive direction   **1**
   of y-axis is

    a) (-6, 0)   b) (6, 0)

    c) (0, -6)   d) (0, 6)

6. Classify the following numbers as rational or irrational: **1**
   $$\frac{2\sqrt{7}}{7\sqrt{7}}$$

   <div align="center">OR</div>

   Classify the following number as rational or irrational.0.3796

7. Write the coefficient of x^2 in (x - 1)(3x - 4).   **1**

   <div align="center">OR</div>

   Find the remainder when x^3 + 3x^2 + 3x + 1 is divided by x + 1

8. Find the coordinates of the point: whose ordinate is -4 and which lies on y-   **1**

axis.

9. 2x + y = 3 passes from origin. Is this statement true or false? **1**

OR

Write a solution of the linear equation 5x + 0y + 8 = 0 in two variables.

10. Write the coefficient of x^2 in the expansion of $(x - 2)^3$. **1**

Section B

11. Simplify the following by rationalizing the denominator : $\frac{1}{\sqrt{6}-\sqrt{5}}$ **2**

12. Expand: $\left(\frac{1}{x} + \frac{y}{3}\right)^3$ **2**

13. Find whether the given equation have x = 2, y = 1 as a solution: **2**

2x + 3y = 7

OR

Find whether the given equation have x = 2, y = 1 as a solution:

2x – 3y + 7 = 8

14. Express a following in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$ $0.4\overline{7}$ **3**

OR

You know that $\frac{1}{7} = 0.\overline{142857}$. Can you predict what the decimal expansions of $\frac{2}{7}, \frac{3}{7}, \frac{4}{7}, \frac{5}{7}, \frac{6}{7}$ are, without actually doing the long division? If so, how?

15. If both (x- 2) and $\left(x - \frac{1}{2}\right)$ are factors of $px^2 + 5x + r$, Show that p = r. **3**

16. In which quadrant or on which axis do each of the points (-2, 4), (2, -1), (-1, 0), (1, 2) and (-3, -5) lie? Verify your answer by locating them on the Cartesian plane. **3**

17. Solve the equation 2x +1 = x - 3, and represent the solution(s) on **3**

 i. the number line.

ii. the Cartesian plane.

Section C

18. Factorize: $x^3 + 13x^2 + 32x + 20$ **4**

OR

Factories: $\frac{1}{27}\left(2x + 5y\right)^3 + \left(\frac{-5}{3}y + \frac{3}{4}z\right)^3 - \left(\frac{3}{4}z + \frac{2}{3}x\right)^3$

19. Write the coordinates of the vertices of a rectangle whose length and breadth are 5 and 3 units respectively, one vertex at the origin, the longer side lies on the x-axis and one of the vertices lies in the III quadrant. **4**

20. Draw the graph of the equation 3x + 4y = 12 and find the co-ordinates of the points of intersection of the equation with the co-ordinate axes. **4**

Atomic Energy Central School No. 4 Rawatbhata

Class 09 - Science

Periodic Test-I (2019-20)

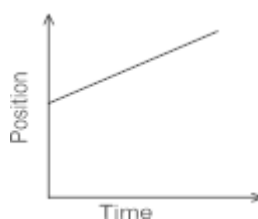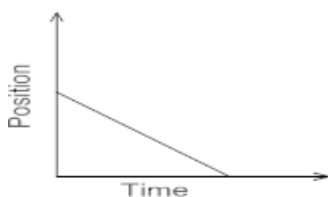**Maximum Marks: 40**   **Time Allowed: 1 hour and 30 minutes**

General instructions:
1. All questions in section A one mark each.
2. All questions in section B three marks each.
3. All questions in section C five marks each.

Section A

1. When water boils, its temperature:
    a) keeps on increasing as long as heating is continued
    b) may decreases or increases depending on the place where the experiment is being carried out
    c) remains constant
    d) keeps decreases then increases

2. What are the characteristics of the particles of matter?
    (A) Particles of matter are in continuous motion.
    (B) Particles of matters do not have spaces between them.
    (C) Particles of matter attract each other.
    (D) Particles of matter are very large in size.

    a) (A), (B), (C) and (D) are correct.   c) (A), (B) and (C) are correct.
    b) (B) and (C) are correct.   d) (A) and (C) are correct.

3. There is no net movement of water when a cell is placed in a/an_____medium.
    a) hypotonic   b) isotonic
    c) saturated   d) hypertonic

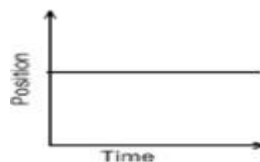4. Which of the following is the position-time graph for a body at rest?

b

c)

d)

5. Find the incorrect statement
    a) The body is said to be accelerating if it moves in a uniform circular motion
    c) The slope of velocity-time graph gives instantaneous acceleration
  b) None of these.
  d) When a body moves with constant speed its acceleration is zero

6. Suggest a method to liquefy atmospheric gases.

7. The room temperature is $25^O C$. What is the corresponding temperature on the Kelvin scale ?

8. Name the process which occurs when a drop of Dettol is added to water.

9. Where are genes located?
10. Define acceleration of a body.

Section B

11. Give two reasons to justify—
    (a) water at room temperature is a liquid.
    (b) an iron almirah is a solid at room temperature.

                              OR

    Give an experiment to show that ammonium chloride undergoes sublimation.
12. What is a prokaryotic cell? Draw well labelled diagram

                              OR

    Name the cell organelle found in plant cells only. Write its types and function.
13. Write main differences between plant cell and animal cell.

14. A car starts from rest and moves along the X-axis with constant acceleration 5 ms^{-2} for 8 seconds. If it is continue with constant velocity, what distance will the car cover in 12 seconds since it started from the rest?

                              OR

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

15. An electron moving with a velocity of $5 \times 10^4 \text{ ms}^{-1}$ enters into a uniform electric field and acquires a uniform acceleration of 10^4 ms^{-2} in the direction of its initial motion.
    i. Calculate the time in which the electron would acquire a velocity double of its initial velocity.
    ii. How much distance the electron would cover in this time?

Section C

16. Give reasons for the following observations:
    (a) A gas completely fills the vessel in which it is kept.
    (b) A gas exerts pressure on the walls of the container.
    (c) Naphthalene balls disappear with time without leaving any solid.
    (d) We can easily move our hand in air but to do the same through a solid block of wood, we need a karate expert.
    (e) Our palm feel cold when we put some acetone or petrol or perfume on it.
17. Write the main function of each of the following.
    (a) Plasma membrane
    (b) cell wall
    (c) Mitochondria
    (d) Lysosome
    (e) Endoplasmic reticulum
18. Deduce the following equations of motion:
    i. $S = ut + \frac{1}{2}at^2$
    ii. $v^2 = u^2 + 2aS$

                              OR

    Two stones are thrown vertically upwards simultaneously with their initial velocities u_1 and u_2 respectively. Prove that the heights reached by them would be in the ratio of u_1^2: u_2^2 (Assume upward acceleration is -g and downward acceleration to be +g).

Maximum Marks: 40   **Time Allowed: 1 hour and 30 minutes**

General Instructions:

Note: All questions are compulsory. There is no overall choice, however in some questions, internal choices have been given.

Section A

1. 'Two Treatises of Government' was written by: **1**

   a) Rousseau   b) Montesquieu

   c) None of these   d) John Locke

2. 'Directory' means: **1**

   a) An executive made up of five members   b) Addresses of the Legislative Council

   c) List of names   d) Formed by the militarydictator

3. India's distance from Europe has been reduced by_____km after the openeing of the Suez Canal.   **1**

   a) 7,000   b) 8,000

   c) 5,000   d) 9,000

4. Which party of Zimbabwe helped its country to gain independence?   **1**

   a) None of these   b) Zimbabwe party

   c) Popular party   d) ZANU-PF

5. The main activity of the village of Palampur is: **1**

   a) Manufacturing   b) Farming

   c) Dairy farming   d) Cattle rearing

6. Name the news paper on which the speech of Robespierre was printed.   **1**

OR

   Who was given the status of active citizens?

7. What is the time difference between Gujarat and Arunachal Pradesh?   **1**

8. Write down the easternmost longitude of India?   **1**

9. How do medium and large farmers manage capital?   **1**

OR

   How is dairy farming practiced in Palampur?

10. Name a country which has multi-party system.   **1**

OR

What does referendum means?

Section B

11. What laws did the revolutionary government introduce to improve the lives **3**
of women?

12. Justify the naming of Indian Ocean after India? **3**

13. Write any three features of democratic elections. **3**

14. How did the spread of electricity help farmers in Palampur? **3**

OR

What are the importances of non farming activities?

15. Identifythe given features in the given political map of India. **3**
with the help of the following information and write their
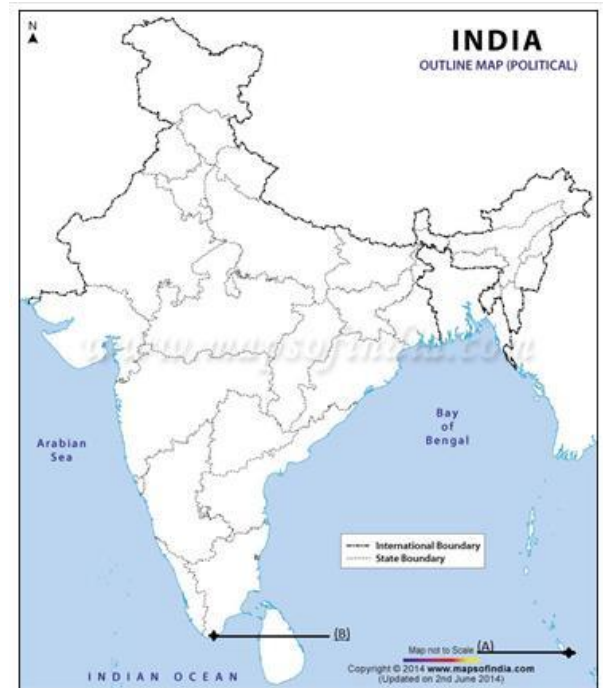correct names on the lines marked on the map.

   i. Southernmost Point of India

  ii. Southernmost tip of Indian mainland

     On the same political map locate and label
the following

  iii. Easternmost meridian

Section C

16. Describe the circumstances leading to the
outbreak of revolutionary protest in France.**5**

OR

Describe the main features of the constitution of
1791 drafted by the National Assembly.

17. Explain the various factors of production. **5**

18. Describe any five features of non-democratic Pakistan under General **5**
Musharraf.

Atomic Energy Central School No. 4 Rawatbhata

Class 09 - English Language and Literature
Periodic Test-I (2019-20)

Maximum Marks: 40   **Time Allowed: 1 hour and 30 minutes**

General Instructions:

All questions are compulsory. However in some questions, internal choices have been given.

Section A

1. **Read the passage carefully and answer the following questions carefully: 8 (8 Marks)**

The moon was coming up in the east, behind me, and stars were shining in the clear sky above me. There wasn't a cloud in the sky. I was happy to be alone high up above the sleeping countryside. I was flying my old Dakota aeroplane over France back to England. I was dreaming of my holiday and looking forward to being with my family. I looked at my watch: one thirty in the morning.

I should call Paris Control soon, I thought. As I looked down past the nose of the aeroplane, I saw the lights of a big city in front of me. I switched on the radio and said, **Paris Control, Dakota DS 088 here. Can you hear me? I'm on my way to England. Over.**

The voice from the radio answered me immediately: **DS 088, I can hear you. You ought to turn twelve degrees west now, DS 088, Over.**

I checked the map and the compass switched over to my second and last fuel tank and turned the Dakota twelve degrees west towards England.

I'll be in time for breakfast,' I thought. A good big English breakfast! Everything was going well — it was an easy flight.

Paris was about 150 kilometers behind me when I saw the clouds. Storm clouds. They were huge. They looked like black mountains standing in front of me across the sky. I knew I could not fly up and over them, and I did not have enough fuel to fly around them to the north or south.

I ought to go back to Paris, I thought, but I wanted to get home. I wanted that breakfast. **I'll take the risk,** I thought and flew that old Dakota straight into the storm.

Inside the clouds, everything was suddenly black. It was impossible to see anything outside the aeroplane. The old aeroplane jumped and twisted in the air. I looked at the compass. I couldn't believe my eyes: the compass was turning round and round and round. It was dead. It would not work! The other instruments were suddenly dead, too. I tried the radio.

    On the basis of your reading of the passage, answer any eight of the following questions briefly: (1×8=8)

  a. How was the sky when he began his flight?

  b. Where was he going from Paris?

  c. Why couldn't he believe his eyes?

  d. What was the condition of other instruments? e. What was he dreaming of?

  f. What did the voice from the radio answer?

g. Why couldn't he fly around the dark clouds and reach England?

h. How did the aeroplane behave when it was amidst the thick dark clouds?

Section B

2. Renuka started writing a short story. However, due to an unavoidable   **10**

   reason, she had to give it up after writing a few lines. Using the beginning

   Renuka had made, develop the story in about 150-200 words. **(10)**

   Once a tiger killed a woman passing through the forest. The woman.....

3. **There is one error in each line. Identify the wrong word and write it with**   **4**

   the correction in the spaces given. (4 marks)

	incorrect	correct
Mohan Das Karamchand Gandhi go to England	e.g. go	went
to higher studies at the age of 19.	(a)	....
His mother is apprehensive about young men	(b)	....
go astray in western society. But her fears	(c)	....
were allayed that Mohandas Karamchand Gandhi	(d)	....
swore not to touch meat, wine and woman.		

Section C

4. What kind of schoolroom did Margie have? Describe.   **2**

5. What problem did the poet feel while standing on the intersection of the two   **2**

   roads? Write your answer in the context of Poem The Road Not Taken.

6. What was the child's response to the many offers made by the man?   **2**

7. What are the things that the child sees on his way to the fair? Why does he lag   **2**

   behind?

8. Why did Grandfather decide to take Toto with him to Saharanpur? Write your   **2**

   answer in the context of The Adventures of Toto.

9. What is the role of a teacher in the life of a student? How is a human teacher   **8**

   better than a mechanical teacher? Write your answer in the context of The

   Fun They Had.

OR

   Discuss the title of the poem "The Road Not Taken". Is it appropriate for the

   poem?

प्रश्न – 1 - निम्नलिखित अपठित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिये –

इतिहास इस बात का साक्षी है कि धर्म या संप्रदाय के नाम पर जितना अधर्म और अत्याचार संसार में हुआ उतना किसी अन्य चीज़ से नहीं | वास्तव में मानव ने धर्म या संप्रदायों की रचना की थी आदिम वृतियों पर विजय प्राप्त करने के लिए, जिसमें एकता और प्रेम का संदेश दिया गया था लेकिन इसके लिए मनुष्य को अंतः संघर्ष भी करना पड़ता है तभी वह बुराइयों पर विजय पा सकता है | हमारे धर्मशास्त्रों ने भी अधर्माचरण करने वालो की पराजय की बात कही है | महाभारत के युद्ध में पांडवों की विजय धर्म की विजय थी और कौरवों की पराजय अधर्म की पराजय थी | रावण ने सीता हरण करके जिस अधर्म का आचरण किया उसका दंड उसे भुगतना ही पड़ा और राम के साथ युद्ध में रावण पराजित हुआ | अशोक ने कलिंग युद्ध में अनेक लोगों की हत्या की तथा प्रायश्रित स्वरूप उसने सब कुछ त्यागकर बौद्ध धर्म अपना लिया जिसके फलस्वरूप वह आज तक अमर है | बाइबल में ईसा मसीह ने कहा है कि "यदि कोई तुझे एक गाल पर तमाचा लगाए तो उसके सामने दूसरा गाल कर देना चाहिए |" इस प्रकार धर्म के नाम पर जो लड़ाईयाँ, दंगे, लूट और हत्याएँ होती हैं उनसे अधर्म या साम्प्रदायिकता को ही बढ़ावा मिलता है , जो मानव अस्तित्व के लिए एक खतरा है |

क- इतिहास किस बात का साक्षी है ?   1

ख- मनुष्य बुराइयों पर कब विजय प्राप्त कर सकता है ?   1

ग- रावण और अशोक के उदाहरण के माध्यम से लेखक ने क्या बताया है ?   1

घ- बाइबल में ईसा मसीह ने क्या कहा है ?   1

ङ- इस गद्यांश का उचित शीर्षक लिखिए | 1

प्रश्न-2 - 'सु' एवं 'नि' उपसर्ग लगाकर दो-दो शब्द बनाइए | 2

प्रश्न-3 - 'इक' और 'आऊ' प्रत्यय से बननेवाले दो-दो शब्द लिखिए | 2

प्रश्न- 4 - मूल शब्द और प्रत्यय अलग कीजिये :ईमानदार , सामाजिक   1

प्रश्न-5 - उपसर्ग और मूल शब्द अलग कीजिये –   1

लाजवाब , अवकाश

प्रश्न-6 - अपने क्षेत्र में फैली गंदगी के संबंध में नगरपालिका के स्वास्थ्य अधिकारी को शिकायती पत्र लिखिए | 5

प्रश्न–7 - निम्नलिखित प्रश्नों के उत्तर दीजिये | 2*4 =8

क- कहानी में बैलों के माध्यम से कौन-कौन से नीति विषयक मूल्य उभरकर आए है ?

ख- 'ल्हासा की ओर' पाठ के आधार पर बताइए कि उस समय तिब्बती समाज कैसा था ?

ग- किन घटनाओं से पता चलता है कि हीरा और मोती में गहरी दोस्ती थी ?

घ- अपनी यात्रा के दौरान लेखक को किन कठिनाइयों का सामना करना पड़ा ?

प्रश्न-8 - निम्नलिखित पद्यांश को पढ़कर प्रश्नों के उत्तर दीजिये –

थल-थल में बस्ता है शिव ही ,

भेद न कर क्या हिन्दू-मुसलमां |

ज्ञानी है तो स्वयं को जान ,

वही है साहिब से पहचान |

१- कवि और कविता का नाम लिखिए | 1

२- कवयित्री ने ईश्वर को किस नाम से पुकारा है , वह कहाँ रहता है ?   1

३- कवयित्री ने ईश्वर से पहचान किसे बताया है ?   1

४- ज्ञानी से कवयित्री का क्या अभिप्राय है ?   1

प्रश्न-9 - निम्नलिखित प्रश्नों के उत्तर लिखिए –   2*4 =8

१- इस संसार में सच्चा संत कौन कहलाता है ?

२-किसी भी व्यक्ति की पहचान उसके कुल से होती है या उसके कर्मो से ? तर्क सहित उत्तर दीजिए |

३- रस्सी यहाँ किसके लिए प्रयुक्त हुआ है और वह कैसी है ?

4- कवयित्री द्वारा मुक्ति के लिए किए जाने वाले प्रयास व्यर्थ क्यों हो रहें है ?

प्रश्न-10-   {1 } "शिक्षा बच्चों का जन्मसिद्ध अधिकार है" – इस दिशा में लेखिका के प्रयासों का उल्लेख कीजिए | 2

{२-} लेखिका की नानी की आज़ादी के आंदोलन में किस प्रकार की भागीदारी रही ?   2