

केन्द्रीय विद्यालय आर आर एल जोरहाट  
KENDRIYA VIDYALAYA RRL JORHAT  
शीत अवकाश गृह कार्य  
WINTER BREAK HOLIDAY HOMEWORK

CLASS- IX  
कक्षा नवीं

SESSION: 2022-23  
सत्र 2022-23

**SUBJECT– English Language and Literature (184)**

- Q1: Write the summary of the lesson “My Childhood”. (200 words) 10  
Q2: Write the summary of the lesson “Kathmandu” 10  
Q3: Write the story “The Last Leaf” in your own words. (200 words) 10  
Q4: Write a letter to your grandmother telling her about Santosh Yadav and Maria Sarapova in about 200 words. 10

**विषय:-संस्कृतम्**

- शब्दरूपाणि लिखत् – (बालकः / शिक्षकः / लता / मापिका / फलम् / जलम् / साधु / पति )
- धातुरूपाणि लिखत् (लट् / लोट् / लृट् -लकार)  
( गम् / लिख् / विद् )
- निबन्धः लिखत् – (श्रीमद्भागवत् गीता / विद्याधनम् महानधनम् )

**SUBJECT: PHYSICS**

1. An engineer is asked to design a playground slide such that the speed of a child reaches at the bottom does not exceed 4.0 m/s. Determine the maximum height that the slide can be? Given  $g=9.8 \text{ m/s}^2$  5
2. Establish a relation between momentum and kinetic energy of a body. 5
3. Can a body have momentum without having energy? Explain. 5
4. An object thrown at a certain angle to the ground moves in a curved path and falls back to the ground. The initial and the final points of the path of the object lie on the same horizontal line. What is the work done by the force of gravity on the object? 5
5. A man whose mass is 50 kg climbs up 30 steps of a stair in 30 s. If each step is 20 cm high, calculate the power used in climbing the stairs. ( $g=10 \text{ m/s}^2$ )

**SUBJECT: SOCIAL SCIENCE**

1. Write down the stages of election process sequentially. Give examples of state of Assam assembly election with necessary diagram.
2. Map work from the chapters natural vegetation and wildlife, climate.
3. Describe the mechanism of monsoon with map.
4. What is a model code of conduct for election campaign?
5. How is the climate of India governed by the atmospheric conditions? Explain with three suitable examples.
6. In which region are the tropical thorny forests and shrubs found in India? Mention any two characteristics of such type of vegetation.
7. What are the different types of unemployment?
8. How is the poverty line estimated in India? Explain with examples.

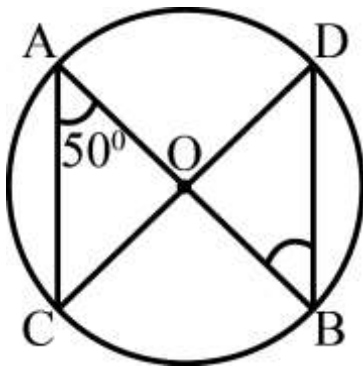
9. Describe the circumstances leading to the outbreak of Russian Revolution.  
 10. Explain how human influences over natural vegetation.

**SUBJECT: MATHEMATICS**

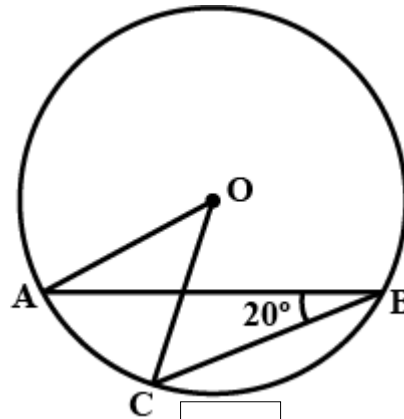
**TYPE A**

**(1 × 10 = 10)**

1. A diagonal of a rectangle is inclined to one side of the rectangle at  $25^\circ$ . the acute angle between the diagonal is  
 (a)  $55^\circ$  (b)  $50^\circ$  (c)  $40^\circ$  (d)  $25^\circ$   
 2. ABCD is a rhombus such that  $\angle ACB = 40^\circ$ , then  $\angle ADB$  is  
 (a)  $40^\circ$  (b)  $45^\circ$  (c)  $50^\circ$  (d)  $60^\circ$   
 3. In the given figure, O is the centre of a circle. If  $\angle OAC = 50^\circ$  then  $\angle ODB = ?$   
 (a)  $40^\circ$  (b)  $50^\circ$  (c)  $60^\circ$  (d)  $75^\circ$



Q.3



Q.4

4. In the given fig.  $\angle ABC = 20^\circ$ , then  $\angle AOC$  is equal to  
 (a)  $20^\circ$  (b)  $40^\circ$  (c)  $60^\circ$  (d)  $10^\circ$   
 5. Determine the length of a chord, which is at a distance of 7 cm from the center of the circle of radius 25 cm.  
 (a) 25 cm (b) 48 cm (c) 16 cm (d) 24 cm  
 6. Assertion:- If A, B, C and D are four points such that  $\angle BAC = 45^\circ$  and  $\angle BDC = 45^\circ$ , then A, B, C, D are concyclic.  
 Reason:- ABCD is a cyclic quadrilateral such that  $\angle A = 85^\circ, \angle B = 70^\circ, \angle C = 95^\circ$  and  $\angle D = 110^\circ$ .  
 (a) both Assertion and reason are correct and reason is correct explanation for assertion  
 (b) both Assertion and reason are correct but reason is not correct explanation for Assertion  
 (c) Assertion is correct but reason is false  
 (d) Assertion is false but reason is true.  
 7. If the diameter of the base of a cone of height 24 cm is 14 cm, then its curved surface area is  
 (a)  $704 \text{ cm}^2$  (b)  $616 \text{ cm}^2$  (c)  $550 \text{ cm}^2$  (d)  $528 \text{ cm}^2$   
 8. A hemisphere of lead of radius 9 cm is cast into a right circular cone of height 72 cm. Find the radius of the ball of the cone.  
 (a) 3 cm (b) 4 cm (c) 4.5 cm (d) 6.5 cm  
 9. The total surface area of a solid hemisphere whose radius is a units, is equal to  
 (a)  $2\pi a^2$  sq. units (b)  $3\pi a^2$  sq. units (c)  $3\pi a$  sq. units (d)  $3a^2$  sq. units  
 10. The area of an equilateral triangle with side  $6\sqrt{3}$  cm is  
 (a)  $27 \text{ cm}^2$  (b)  $27\sqrt{3} \text{ cm}^2$  (c)  $18\sqrt{3} \text{ cm}^2$  (d)  $54\sqrt{3} \text{ cm}^2$

**TYPE B**

**(2 × 3 = 6)**

11. In a parallelogram ABCD, two point P and Q are taken on diagonal BD such that DP = BQ. Show that APCQ is a parallelogram.

12. If a line intersects two concentric circles with centre O at A, B, C and D. Prove that AB = CD.

OR

ABCD is a cyclic quadrilateral whose diagonals intersect at a point E. If  $\angle DBC = 70^\circ$ ,  $\angle BAC$  is  $30^\circ$ , find  $\angle BCD$ . Further, if  $AB = BC$ , find  $\angle ECD$ .

13. How many metres of cloth, 5 m wide, will be required to make a conical tent, the radius of whose base is 7 m and height is 24 m.

OR

Find the diameter of a sphere whose surface area is  $154 \text{ cm}^2$ .

### TYPE C

(3 × 2 = 6)

14. Show that the bisectors of angles of a parallelogram form a rectangle.

15. In the given figure, two equal chords AB and CD of a circle C(O,r) when produced meet at a point E. Prove that (i) BE = DE (ii) AE = CE

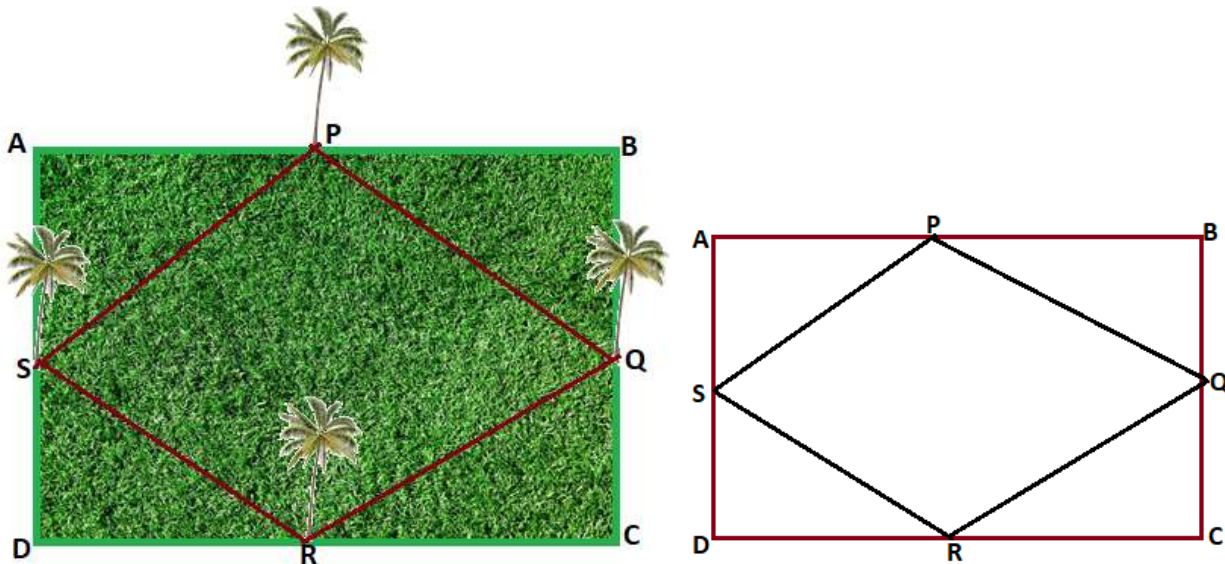
OR

If non-parallel sides of a trapezium are equal, prove that it is cyclic.

### TYPE D

(4 × 2 = 8)

16. A farmer has a rectangular shape field (ABCD) which length is 45 m and breadth is 28 m. There are four coconut tree just between (mid-point) the length and breadth as shown in fig. The position of coconut tree is denoted by P, Q, R and S. The farmer joined these four coconut trees by wire and divides the field into four parts.



(a) Name the figure obtained by joining the four coconut trees.

(b) If the farmer joined the corner A of the field to corner C by a rope, then find length of the rope.

(c) Find The length of wire that was used to join the four coconut trees.

OR

Find the area of the part of the field enclosed by PQRS.

16. According to a data, around one and a half lakh persons die due to road accidents per year in India. According to a research, mostly accidents were occurred due to ignorance of traffic rules.

To spread awareness about traffic rules, the cadets of NCC and Scout Guides of Kendriya Vidyalaya initiate a step in this matter and provide all Vidyalaya the traffic signal board, indicating "SCHOOL AHEAD" is an equilateral triangle with side "a" cm.

a) If the perimeter of triangle is 180 cm, then find the height of the triangle.

(b) If the board has an area of  $1600\sqrt{3}$  cm<sup>2</sup>, then find its perimeter.

OR

If the perimeter of the board is 300 cm, then find its area.

(c) If the side of the board is 40 cm, then find its height.



### TYPE E

(5 × 2 = 10)

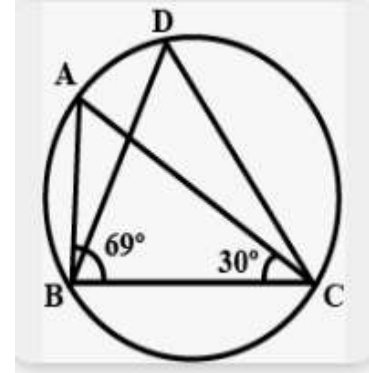
17. Prove that if the angle subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle. Use this statement and find  $\angle BDC$  in the given figure if  $\angle ABC = 69^\circ$ ,  $\angle ACB = 31^\circ$ .

18. A conical tent is 10 m high and the radius of its base is 24 m. Find :-

(a) slant height of the tent.

(b) cost of the canvas required to make the tent, if the cost of 1 m<sup>2</sup> is Rs 70.

(c) Find the ratio of the curve surface area of the tent to the volume of the tent.



OR

A right circular cylinder just encloses a sphere of radius 7 cm. Find

(a) the surface area of the sphere

(b) curved surface area of the cylinder

(c) Find the ratio of the surface area of the sphere to the curved surface area of the cylinder.

(d) Find the difference of the volume of the cylinder and sphere.

### SUBJECT: CHEMISTRY

1. If an atom contains one electron and one proton, will it carry any charge or not?

2. On the basis of Thomson's model of an atom, explain how the atom is neutral as a whole.

3. If number of electrons in an atom is 8 and number of protons is also 8, then

(i) What is the atomic number of the atom? and

(ii) What is the charge on the atom?

4. In a reaction 5.3 g of sodium carbonate reacted with 6 g of ethanoic acid. The products were 2.2 g of carbon dioxide, 0.9 g water and 8.2 g of sodium ethanoate. Show that these observations are in agreement with the law of conservation of mass carbonate.

5. Write down the formulae of

(i) Sodium oxide

(ii) Aluminium chloride

(iii) Sodium sulphide

(iv) Magnesium hydroxide

### SUBJECT: BIOLOGY

1. What are the different types of fisheries?

2. What is 'apiculture'? Name a few products obtained from apiculture.

3. What are weeds and fertilizers?

4. What are the harmful effects of using excessive fertilizers?

5. What are the different ways of hybridisation?
6. What do you understand by organic farming?
7. Define one method of crop production ensuring high yield.
8. What are macro-nutrients?
9. Give points of difference between egg producing chicken and boiler producing chicken.
10. Name any two weeds.
11. How do efficiency of nutrients affect the crop?
12. Name two rabi and two kharif crops.

### विषय: हिन्दी

प्रश्न -1 अपनी बेटी का रिश्ता तय करने के लिए रामस्वरूप उमा से जिस प्रकार के व्यवहार की अपेक्षा कर रहे हैं ,वह उचित क्यों नहीं है ?

प्रश्न -2 सब्जी के दुकानदार और पड़ोस की चाची के बीच संवाद लिखिए |

प्रश्न-3 अपने घर या पास पड़ोस के किसी बुजुर्ग से बात कीजिए और पता कीजिए कि उस समय समाज कैसा था और आजकल के समाज में क्या बदलाव आया है |

प्रश्न-4 'विद्यार्थी के जीवन में विद्यालय का महत्व' पर निबंध लिखिए|