Yuvashakti Model School
shiksha aur sanskriti
RAMA VIHAR, DELHI - 110081
(Affiliated to CBSE and Recognised by Directorate of Education)

WINTER BREAK

Session :- (2025-26)

Class-IX

संस्कृत

प्रश्न 1. चत्रवर्णन याद करें ।

प्रश्न 2. पत्र लेखन का अभ्यास करें।

प्रश्न 3. पाठ 9 से 12 तक सभी प्रश्नोत्तर,अभ्यास कार्य याद करें ।

प्रश्न 4. हिंदी से संस्कृत में वाक्य बनाने का अभ्यास करें ।

प्रश्न 5. शब्दरूप ,धातुरूप ,प्रत्यय और उपसर्ग का अभ्यास करें।

English

Holiday homework is an opportunity to revise lessons and explore new ideas. Students are advised to complete the work with interest and originality while enjoying their holidays.

Write 5 diary entries on topics like:

A memorable day of holidays

A visit to a temple / historical place

A day without mobile phone

Helping someone in need

My goal for this year

Paragraph / Article Writing

Write any three

Importance of discipline

Role of students in nation building

Advantages & disadvantages of social media

Importance of reading

 books

Creative Activities

Poem Appreciation

Choose any one poem from the syllabus

Write:

Theme

Poetic devices

Personal response

Character Sketch.

 Write a character sketches of   main character from:

The Sound of Music

The Lost Child

The Little Girl

⬜ Grammar & Language

Tenses (10 sentences)

Active–Passive Voice (20 sentences)

Direct–Indirect Speech (20 sentences)

Modals (20 sentences)

And read all chapters and learn notebook work

MATHS

1. Find the value of k, if $x - 1$ is a factor of $4x^3 + 3x^2 - 4x + k$.
2. Find the value of k, if $x - 1$ is a factor of $p(x)$ in each of the following cases:

   (i). $p(x) = x^2 + x + k$ $\qquad$ $(ii). p(x) = kx^2 - \sqrt{x} + 1$

3. Evaluate the following using suitable identities:

   $(i). (99)^3$ $\qquad\qquad$ $(ii). (102)^3$

4. Write the following cubes in the expanded form:

   $(i). (2x + 1)^3$ $\qquad\qquad$ $(ii). (\frac{3}{2}x + 1)^3$

5. Verify whether the following are zeroes pf the polynomial, indicated against them.

   $(i). p(x) = 3x + 1, x = -\frac{1}{3}$ $\quad$ $(ii). p(x) = x^2 - 1, x = 1, -1$

$(iii). 3x^2 - 1, \ x = -\dfrac{1}{\sqrt{3}} \ and \ \dfrac{2}{\sqrt{3}}$

6. An isosceles triangle has perimeter 30cm and each of the equal sides is 12cm. Find the area of the triangle.

7. Sides of a triangle are in the ratio of 12:17:25 and its perimeter is 540cm. Find its area.

8. IF non-parallel sides of a trapezium are equal, then prove that it is cyclic quadrilateral.

9. ABC and ADC are two right triangles with common hypotenuse AC. Prove that ∠CAD = ∠CBD.

10. The radius of a spherical balloon increases from 7cm to 14cm as air being pumped into it. Find the ratio of surface areas of balloon in the two cases.

11. How many litres of milk can a hemispherical bowl of diameter 10.5cm hold?

12. Find the volume of a sphere whose surface area is 154 cm².

13. A shot-putt is a metallic sphere of radius 4.9cm. If the density of the metal is 7.8 g per cm³, Find the mass of shot-putt.

14. A hemi sphere dome of building needs to be painted. If the circumference of the base of the dome is 17.6m. Find the cost of painting it, given the cost of painting is ₹ 5 per 100 cm².

15. If the diagonal of a parallelogram are equal, then show that it is a rectangle.

16. In figure 1, $\angle PQR = 100°$, where P,Q and R are points on a circle with centre O. Find ∠ OPR.
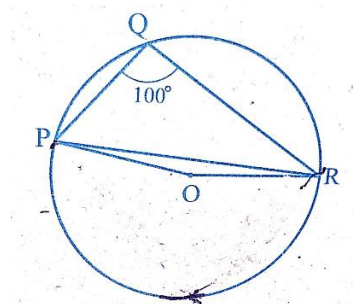

Figure 1

17. The height of a cone is 16 cm and its base radius is 12cm. Find the curved surface area and total surface area of cone. ($use \ \pi = 3.14$).

18. ABCD is a parallelogram and AP and CQ are perpendicular from vertices A and C on diagonal BD (see in figure 2). Show that (i). △ APB ≅ △CQD (ii). AP = CQ
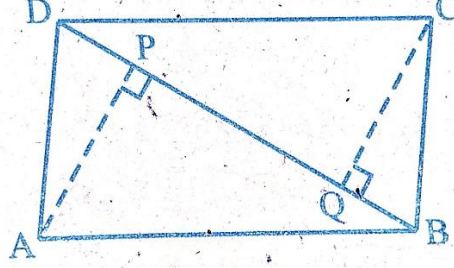

Figure 2

19. Evaluate following products without multiplying directly.
    (i). 103 × 107   (ii). 104 × 96

20. Do 10 activities in Mathematics Lab Manual File.

HINDI

सभी वार्षक परीक्षा पाठ्यक्रम याद करो।

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S.STUDIES

1. Complete Lab Manual

2. Revise full syllabus

3. Do sample papers (will provided on class group)

SCIENCE

Solve the Assignment

PRACTICE TEST PAPER

Time Allowed : 1 Hour   Maximum Marks : 30

SECTION A

MULTIPLE CHOICE QUESTIONS   (5 × 1 = 5 Marks)

Q.1. Which of these would make a crop resistant to biotic stresses ?

(a) Using insecticides to kill insects and other pests.

(b) Developing crop varieties that are tolerant to high soil salinity.

(c) Developing crop varieties that can grow in scarce water conditions.

(d) Growing crops in artificial set ups with fixed temperature and moisture content.

Q.2. Which of these the run-off from smaller catchment areas ?

(a) Tanks   (b) Canals   (c) Dug wells   (d) Tube wells

Q.3. What should one select to store grains at home in order to prevent any spoilage ?

(a) Jute bags   (b) Plastics bags   (c) Earthen pots   (d) Airtight glass jars

Q.4. Virus, bacteria, fungi, and parasites affect the poultry fowl and often leads to the sudden deaths of poultry fowls. How can such loss of poultry be reduced ?

(a) By providing low protein diet to poultry fowls.

(b) By avoiding use of disinfectants on poultry fowls.

PRACTICE TEST PAPER

Maximum Marks : 30

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SECTION A

(5 × 1 = 5 Marks)

MULTIPLE CHOICE QUESTIONS

Q.1. Isotopes of an element have
   (a) different atomic number.
   (b) same atomic number.
   (c) same mass number.
   (d) different chemical property.

Q.2. The number of neutrons present in $_{20}Ca$ and $_{19}K$ is
   (a) 20 and 19 respectively.
   (b) 20 and 20 respectively.
   (c) 19 and 20 respectively.
   (d) 19 and 19 respectively.

Q.3. Sulphur and oxygen combine to form sulphur dioxide. What is the ratio of sulphur and oxygen by mass ?
   (a) 1 : 1
   (b) 2 : 1
   (c) 1 : 2
   (d) 1 : 3

Q.4. Number of phosphorus atoms present in a molecule of phosphorus is
   (a) 2
   (b) 1
   (c) 4
   (d) 3

Q.5. An atom with 3 protons and 4 neutrons will have a valency of
   (a) 7
   (b) 4
   (c) 3
   (d) 1

ASSERTION-REASON QUESTION

(1 Mark)

Note : Read the Assertion (A) and Reason (R) carefully and mark the correct option out of the options given below :
   (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).
   (b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
   (c) Assertion (A) is true, but Reason (R) is false.
   (d) Assertion (A) is false, but Reason (R) is true.

Q.6. **Assertion (A)** : Shells of an atom are designated as L, M, N, O.

   Reason (R) : Elements are defined by the number of protons they possess.

SECTION B

VERY SHORT ANSWER QUESTIONS

(3 × 2 = 6 Mark

Q.7. Write the number of valence electrons in the following atoms :
   (a) Magnesium (Atomic number 12)
   (b) Lithium (Atomic number 3)
   (c) Argon (Atomic number 10)
   (d) Chlorine (Atomic number 17)

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MULTIPLE CHOICE QUESTIONS   **(5 × 1 = 5 Marks)**

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