CLASS IX

HINDI:

पर्यटन की दृष्टि से अयोध्या के प्रमुख स्थानों,आवागमन के संसाधनों, रहने-खाने के उचित स्थानों व रूट मैप सहित सचित्र बुकलेट तैयार करें।

(नोट -* बुकलेट मोटे पेपर पर होना चाहिए।

* बुकलेट स्वच्छता पर विशेष ध्यान दें।)

व्याकरण पुस्तक से -

उपसर्ग पाठ से अभ्यास कार्य -5

प्रत्यय पाठ से अभ्यास कार्य -8

समास पाठ से अभ्यास कार्य-6

(कॉपी मे करें)

ENGLISH:

1.Read The Chapter The Little Girl and write a critical analysis on the theme setting character sketches relationship between the main characters, main episodes ,realisation by the main character and learnings.
2.Prepare a two minute debate on either for or against a topic of your choice.
3.Prepare a power point presentation of the supplementary story allotted to the group on the theme, message ,summary, character sketches, justification of title and learnings

MATHS:

Activity

- Construct a Square Root Spiral .
- Represent $\sqrt{10}$ and $\sqrt{5}$ on number line.
- Verify the Algebraic Identity $(a+b)^2 = a^2 + 2ab+b^2$ using grid paper.
- Represent $\sqrt{6.3}$ geometrically

Project: Select any one topic out of the following topics and present under the following heads

(i) Introduction of the topic
(ii) Relevance/objective of the topic
(iii) Different contains (sub topic) with appropriate Examples
(iv) Application
(v) Conclusions
(vi) Bibliography

Topics are as follows

(i) Euclid Geometry
(ii) Probability and Chances
(iii) Statistics
(iv) Number system
(v) Vaidic maths
(vi) Maths and Architecture
(vii)Maths and banking sector
(viii) Mensuration of plane figure
(ix) Mensuration of solid figure
(x) Symmetry
(xi) Algebra
(xii) Geometry
(xiv)coordinate geometry

Application

1. Write 10 rational numbers between ⅓ and ½

2. Rationalize the denominator of $\frac{1}{\sqrt{3}-\sqrt{2}}$

3. Express the following as a fraction in the simplest form. (i) 2.23 (ii) 3.123 (iii) 1.3
4. Simplify $11.4565 \div 2.67$

5. If $x = (2+\sqrt{3})$, find the value of (i)x +1/x (ii) $x^2 + \frac{1}{x^2}$

8. Find remainder if p(x) is divided by g(x) ,also verify using division method
(i) $P(x)= x^3 + 4x^2-7x +3$; $g(x) = x +2$
(ii) $P(x)= x^3- 7x^2 +3x +3$; $g(x) = x -1$

HOTS

9. Factorise: $x^4 - 3x^2y^2 + y^4$

10. Show that : $\frac{1}{3-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-2} = 5$

Multiple choice questions

1. Which one is not a polynomial

(a) $4x^2 + 2x - 1$

(b) $y + \frac{3}{y}$

(c) $x^3 - 1$

(d) $y^2 + 5y + 1$

2. The polynomial $px^2 + qx + rx^4 + 5$ is of type

(a) linear

(b) quadratic

(c) cubic

(d) Biquadratic

3. Identify the polynomial

(a) $x^{-2} + x^{-1} + 5$

(b) $x^2 + 5\sqrt{x} + 7$

(c) $\frac{1}{x^3} + 7$

(d) $3x^2 + 7$

4. The zero of the polynomial $p(x) = 2x + 5$ is

(a) 2

(b) 5

(c) $\frac{2}{5}$

(d) $-\frac{5}{2}$

5. The number of zeros of $x^2 + 4x + 2$

(a) 1

(b) 2

(c) 3

(d) none of these

6. The polynomial of type $ax^2 + bx + c$, $a = 0$ is of type

(a) linear

(b) quadratic

(c) cubic

(d) Biquadratic

7. The value of k, if $(x - 1)$ is a factor of $4x^3 + 3x^2 - 4x + k$, is
(a) 1
(b) 2
(c) −3
(d) 3

8. The degree of polynomial $p(x) = x + \sqrt{x^2 + 1}$ is
(a) 0
(b) 2
(c) 1
(d) 3

9. If $3 + 5 - 8 = 0$, then the value of $(3)^3 + (5)^3 - (8)^3$ is
(a) 260
(b) −360
(c) −160
(d) 160

10. If value of 104×96 is
(a) 9984
(b) 9469
(c) 10234
(d) 11324

11. The value of $5.63 \times 5.63 + 11.26 \times 2.37 + 2.37 \times 2.37$ is
(a) 237
(b) 126
(c) 56
(d) 64

12. The value of $\frac{(361)^3 + (139)^3}{(361)^2 - 361 \times 139 + (139)^2}$ is
(a) 300
(b) 500
(c) 400
(d) 600

13. If $x + y = 3$, $x^2 + y^2 = 5$ then xy is
(a) 1
(b) 3
(c) 2
(d) 5

14. If $x + 2$ is a factor of $x^3 - 2ax^2 + 16$, then value of a is
(a) 3
(b) 1

(c) 4
(d) 2

15. If one of the factors of $x^2 + x - 20$ is $(x + 5)$. Find the other
(a) $x - 4$
(b) $x + 2$
(c) $x + 4$
(d) $x - 5$

Case Study 1

Ankur and Ranjan start a new business together. The amount invested by both partners together is given by the polynomial p(x) = 4x2 + 12x + 5, which is the product of their individual shares.

i .

Coefficient of x2 in the given polynomial is
a. 2
b. 3
c. 4
d. 12

ii.

Total amount invested by both, if x = 1000 is

a. 301506
b. 370561
c. 4012005
d. 490621

iii.

The shares of Ankur and Ranjan invested individually are

a. (2x + 1), (2x + 5)
b. (2x + 3), (x + 1)
c. (x + 1), (x + 3)
d. None of these

iv.

What is the name given to the polynomial which represents the amount that each of them has invested.

a. Cubic
b. Quadratic

SCIENCE:

CHEMISTRY-

1.Read the topic

EVAPORATION, cause of Evaporation and factors affecting EVAPORATION.
Make notes on the topics.
Also carry out 3simple activities to relate evaporation in your daily life and prepare a report (write in your register)

2. Prepare synopsis of your Chemistry project topic.

BIOLOGY:

1. Choose an innovative topic and prepare synopsis for Biology project.
2. Write the experiment- study of plant cell through onion peel and animal cell of cheeks in your practical copy with the help of lab manual.

PHYSICS:

Solve the following questions

1. During an experiment, a signal from a spaceship reached the ground station in five minutes. What was the distance of the spaceship from the ground station? The signal travels at the speed of light, that is, 3×10^8 m/s.
2. A bus starting from rest moves with a uniform acceleration of 0.1 m s^{-2} for 2 minutes. Find (a) the speed acquired, (b) the distance travelled.
3. Try to derive Equation of motion.

SST:

History

A) Practice location of places which we came across in world political map .

B) Prepare for Monday test.

C) Type an article for school magazine on any topic:. 1 Current affairs

2 Social issue

3 Self expression

4 Cartoon making

5 Poster making
7 Interview
8 Story writing
9 Any other topic.
Important*: Article must be original
D) Each one is required to contribute to the development of the school museum .

Geography:
.Prepare project and presentation on "Natural Vegetation and Wildlife".

Economics:
. Prepare pictorial report of village excursion or any village you have visited.

COMPUTER:

Prepare a chart on following Topics:
Roll No 1-10 (Input Devices)
Roll No 11-20(Output Devices)
Roll No 21-30(Memory Devices)
Roll No 31-40(Functional components)
You can search for new devices also for preparing charts.

ART:

Make a folk art painting of any state.
Ex. Madhubani, mandala, Gond art etc.