Summer Vacation Assignment 2016-17

CLASS – IX

MATHEMATICS

1. Examine whether the following numbers are rational or irrational.

    (a) $(\sqrt{2} + 2)^2$ (b) $\frac{6}{2\sqrt{3}}$

2. Find one rational and one irrational number between 1.501 and 1.502.

3. Find two rational numbers between 0.2301 and 0.2424….

4. Rationalise the denominator-

$$\frac{16}{5 - \sqrt{41}}$$

5. Represent $\sqrt{5.5}$ on the real line.

6. Express each of the following decimals in the p/q.

    (a) $0.\overline{001}$ (b) $12.3\overline{24}$

7. Simplify:

    (i) $6^{\frac{2}{5}} \times 6^{\frac{3}{5}}$ (ii) $\sqrt[3]{4} \times \sqrt[3]{16}$ (iii) $(81)^{\frac{3}{4}}$ (iv) $\frac{\sqrt[4]{1250}}{\sqrt[4]{2}}$

8. Find the value of a and b $\frac{3+\sqrt{7}}{3-\sqrt{7}}$ = a + b $\sqrt{7}$.

9. For what value of a, x – 3 is a factor of $x^3 + x^2 – 17x + a$?

10. .If p(x) = $5 – 4x + 2x^2$ then Find P(-2).

11. Find the remainder when P(x) = $x^3 + 3x^2 + 3x + 1$ is divided by g(x) = 5 + 2x.

12. Without actually calculating the cubes, find the value of $(28)^3 + (-15)^3 + (-13)^3$.

13. Evaluate using suitable identity-

    (a) 104×96 (b) $(102)^3$

14. The polynomial f(x) = $ax^3 + 9x^2 + 4x – 8$ when divided by (x + 3) leaves (-20) as reamainder. Find the value of a.

15. Factorize-

    (a) $27p^3 - \frac{1}{216} - \frac{9}{2}p^2 + \frac{1}{4}p$ (b) $64 m^3 – 343 n^3$.

16. Find the value of $x^3 + y^3 – 12xy + 64$ when x + y = (-4).

17. Find three rational numbers between $\frac{3}{5}$ and $\frac{4}{5}$.

18. If a + b = 9 and ab = 7, find the value of $a^3 + b^3$.

19. Find a and b, if (x + 1) and (x + 2) are factors of $x^3 + 3x^2 – 2ax + b$.

20. Factorise –

(i) $4x^2 + 12xy + 9y^2$ (ii) $x^2 + 7x + 12$ (iii) $6x^2 – x – 2$ (iii) $x^4 – y^4$ (iv) $(3x – 5)^2 – 9x + 15$.

ENGLISH

1. Solve two sample papers or previous years' papers of SA I.

2. Write an article on Environmental Pollution in about 150 words.

3. Write a letter to the editor of 'The Times Of India' showing your concern about Price Hike of commodities.

4. Write three notices on various topics of your choice.

5. Write bio-sketches of three famous personalities.

6. Read first five chapters of the novel 'Three Men In A Boat'

7. Write character sketches of all the four characters of 'T

प्र01– पुन पुन का पानी कहां घुस आया था ?

प्र02– नरसी मेहता द्वारा लिखित कविता का सार अपने शब्दों में लिखें ?

प्र03– 1949 की आपदा का वर्णन लेखक किस प्रकार करता है ?

प्र04– साधु जन किसकी निन्दा करते हैं ?

प्र05– मान सरोवर में कौन रहता है ?

प्र06– प्रेमचंद जी ने नौकरी क्यों छोड़ दी ?

प्र07– दो बैलों की कथा के आधार पर स्वतन्त्रता संग्राम की स्थिति का वर्णन करिये।

प्र08– बालिका के बैलों से प्रेम क्यों था ?

प्र09– यात्रा के दौरान लेखक को किन कठिनाइयों का सामना करना पड़ा ?

प्र010– निम्नलिखित के उपसर्ग अर्थ सहित लिखिए ?
निरासलस, उनसठ, अत्यधिक, अभ्युदय

प्र011– अनुप्रास उपमा व यमक अलंकार के उदाहरण व परिभाषा लिखिए ?

प्र012–अपने मित्र को आमन्त्रण पत्र लिखिए ?

प्र013–मेरी अवकाश यात्रा, प्रदूषण – एक समस्या किसी एक पर निबन्ध लिखिए?

प्र014–निम्नलिखित में से किसी एक विषय पर व्याख्या सहित चार्ट बनाकर लायें ? – 20 उपसर्ग अर्थ सहित, अलंकार परिभाषा उदाहरण सहित, ग्लोबल वार्निंग चित्र व्याख्या सहित जल प्रलय चित्र व्याख्या सहित

प्र015– एक अपठित काव्य उसकी व्याख्या सहित ?

Social Science

Assignment
1. Write the physical division of India. Explain briefly.
2. What is the importance of Himalaya and write the division of Himalaya.
3. Draw an outline map of physical division of India.
4. Write the contribution of French revolution to the World.
5. What was the role of women in French revolution?
6. Write the arguments in favour and against the democracy.
7. What are the features of democratic government.
8. What are the role of education and heath to develop the human resource.

Projects

Theme- Disaster Management
Choose **any one** topic
1. Earthquake
2. Flood
3. Famine
4. Land sliding
5. Firing

SCIENCE

Q 1 Write the factors affecting evaporation .

Q2 Why should we wear cotton clothes in the summer?

Q3 Measurable quantities & their units NCERT page 12 .

Q4 Write the functions of the following cell organelles Plastids, Mitochondria, Golgi apparatus &lysosomes.

Q5Equations of motion by graphical method & numerical based on three such equations.