



VIDYA BHARATI SCHOOL

Holiday HomeWork

CLASS IX

Math

11

SELF ASSESSMENT TEST 1

(Based on Chapter 1)

Time : 1 hour

Max. Marks : 25

Note. Q. Nos. 1 – 2 carry 1 mark each, Q. Nos. 3 – 5 carry 2 marks each, Q. Nos. 6 – 8 carry 3 marks each and Q. Nos. 9 – 10 carry 4 marks each.

1. Find the value of $\sqrt{(81)^{-2}}$.
2. Find an irrational number between $\sqrt{5}$ and $\sqrt{6}$.
3. Represent $\sqrt{3}$ on a number line.
4. Simplify : $12\sqrt{18} + 6\sqrt{20} - 6\sqrt{147} + 3\sqrt{50} + 8\sqrt{45}$.
5. Evaluate : $\sqrt{12 - 2\sqrt{35}}$.
6. If $\sqrt{2} = 1.4142$, find the value of $\frac{1}{\sqrt{2}}$.
7. If $a = 4 - \sqrt{15}$, find the value of $a^2 + \frac{1}{a^2}$.
8. Visualise 2.384 on the number line.
9. Find two rational numbers a and b if

$$\frac{\sqrt{5} + \sqrt{3}}{\sqrt{5} - \sqrt{3}} = a - \sqrt{15}b.$$

Or

Express $\frac{\sqrt{a^2 - b^2} + a}{\sqrt{a^2 + b^2} + b} \div \frac{\sqrt{a^2 + b^2} - b}{a - \sqrt{a^2 - b^2}}$ in the simplest form.

10. If $x = \frac{1}{2 - \sqrt{3}}$, find the value of $x^3 - 2x^2 - 7x + 5$.

Or

Rationalise : $\frac{1}{\sqrt{3} - \sqrt{2} + 1}$

ANSWERS

1. $\frac{1}{9}$
2. $\frac{\sqrt{5} + \sqrt{6}}{2}$
4. $36\sqrt{5} - 42\sqrt{3} + 51\sqrt{2}$
5. $\sqrt{7} - \sqrt{5}$
6. 0.7071
7. 62
9. $a = 4, b = -1$
9. Or $\frac{b^2}{a^2}$
10. 3
10. Or $\frac{2 + \sqrt{6} - \sqrt{2}}{4}$

SELF ASSESSMENT TEST 2
(Based on Chapter 2)

Time : 1 hour

Max. Marks : 25

Note. Q. Nos. 1 – 2 carry 1 mark each, Q. Nos. 3 – 5 carry 2 marks each, Q. Nos. 6 – 8 carry 3 marks each and Q. Nos. 9 – 10 carry 4 marks each.

1. If $\frac{x}{y} + \frac{y}{x} = -1$, $x, y \neq 0$, then find the value of $x^3 - y^3$.
2. Find the value of p for which $x - 3$ is a factor of the polynomial $p^2x^3 - px^2 + 3px - p$.
3. Factorise : $\frac{3}{2}x^2 - x - \frac{4}{3}$.
4. For what value of a , $x - 5$ divide the polynomial $x^3 - 3x^2 + ax - 10$ exactly?
5. Factorise : $x^6 - y^6$.
6. Factorise : $x^3 - 27y^3 + 8z^3 + 18xyz$.
7. Without actually calculating the cubes, evaluate :
 $(25)^3 + (-19)^3 - (6)^3$.
8. By actual division, find the remainder when $2x^4 - 6x^3 + x^2 - x + 2$ is divided by $x + 2$.
9. If $x^3 + ax^2 + bx + 6$ is divisible by $x - 2$ and leaves remainder 3 when divided by $x - 3$, find a and b .
10. Factorise : $2x^3 - x^2 - 13x - 6$.

ANSWERS

- | | | | |
|---|---|--|------------------------------|
| 1. 0 | 2. $\frac{1}{27}$ | 3. $\left(\frac{3}{2}x + 1\right)\left(x - \frac{4}{3}\right)$ | 4. -8 |
| 5. $(x - y)(x + y)(x^2 + xy + y^2)(x^2 - xy + y^2)$ | 6. $(x - 3y + 2z)(x^2 + 9y^2 + 4z^2 + 3xy + 6yz - 2zx)$ | 9. $a = -3, b = -1$ | 10. $(x + 2)(x - 3)(2x + 1)$ |
| 7. 8550 | 9. 88 | | |

WORK SHEET (APRIL)

SUBJECT: ENGLISH

1. Read the given passage carefully:

I find it difficult to tear myself away from the square. Flute music always does this to me; it is at once the most universal and most particular of sounds. There is no culture that does not have its flute- the reed neh, the recorder, the Japanese shakuhachi, the deep bansuri of Hindustani classical music, the clear or breathy flutes of South America, the high pitched Chinese flutes. Each has its specific fingering and compass. It weaves its own associations. Yet to hear any flute is, it seems to me, to be drawn into the commonality of all mankind, to be moved by music closest in its phrases and sentences to the human voice. Its motive force too is living breath: it too needs to pause and breathe before it can go on.

Answer the question given below:

- Why does the writer find it difficult to tear himself away from the square?
- According to the writer, how does the flute music sound?
- How can you differentiate between South American flute and Chinese flute?
- How is its motive force a living breath?
- The adjective form of culture is.....

(HOTS)

2. Rearrange the jumbled words and phrases to make correct sentences:

- (a) lived/ a very/ and/ king/ powerful/ there/ great
(b) had/ a/ he/ and/ they/ noble wife/ were happy.
(c) of the kingdom/ happy/ people/ the/ were/ also.

3. Fill in the blanks with appropriate words:

Once when Gandhiji was in South Africa, a white policeman.....(kick) him with the boots. He(fall) down with a thud.....(in) the pavement and.....(lose) a couple of teeth. Getting up he enquired, "Sir, how.....(is) your boots? I hope nothing..... (have) happened to them."

Hindi

* निम्नलिखित कहानी देखकर 30-40 शब्दों में उसका सार लिखिए:-

" तहरीर:- मुंशी प्रेमचंद की (कफ़न) "

लिंक:- <https://youtu.be/ff4rMfY7LeQ>

उपरोक्त कार्य हिन्दी रजिस्टर में करें।

SCIENCE

Dear students

Holiday homework will found to be short, interesting as well as marks fetching. 30 marks are assigned out of which 20 marks for Google form MCQ worksheet and 10 marks of Art Integration Project as an integrated project.

1. Link for form is <https://forms.gle/gwGYgmvUcDZqYDAr5>

_Make a calendar of year 2021-22 from chapter 2(chemistry) or chapter 8 (physics) mentioned and video is enclosed how to make it. Use your own innovations and materials available at home in this Crucial period.

<https://www.youtube.com/watch?v=QM8qt9iU5UQ>

[Hope you will enjoy this work.](#)

ग्रीष्मावकाशार्थ विषय- परिपोषण-कार्यक्रमः
कक्षा - नवम
विषयम् - **संस्कृतम्**

- 1- 'कोरोना महामारी' इति ज्वलन्त विषये दश वाक्यानि संस्कृतेन लिखत।
- 2- स्वच्छता विषये एकं चित्रं रचयित्वा तत् - आधारित पञ्च वाक्यानि संस्कृतेन लिखत।

Social Science

Read chapter 1 of History- The French Revolution

Support your reading with Wikipedia

And watch at least one movie based on French Revolution

(There are many free animation and other movies on you tube)

Make a brief note on French Revolution covering the following points

1. France before revolution
2. Estate system in France

3. Role of king Louis xvi in the revolution
4. Role of church
5. Role of women
6. Role of Robespierre
7. Role of Neapolian Bonaparte