

ARYAN PUBLIC SCHOOL**Kalasantapur, Aska**

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Notice – C-54/2022-23

Date: 31/05/2022

STD – IX
HOLIDAY HOMEWORK
SESSION – 2022-23

English :

- Today you woke up late, reached school very late and got badly scolded. Write a Diary Entry describing how you felt and what will you do in the future to avoid such conditions. [100 – 120 words]
- Write a short story in about 100 – 120 words, with the help of the clues given below.
 - **Hints** : going to Mumbai by train to attend the marriage of a friend..... got stuck in a traffic jam..... reached the railway station late..... Boarded a wrong train..... realized after 2 hours..... now you

Social Science :

- Find out the longitudinal and latitudinal extent of your state (Odisha).
- In a Political map of India locate and mark the following places:-
 - (i) Srinagar, (ii) Kohima, (iii) Panaji, (iv) Neighbouring Countries (v) All water bodies surrounding our Nation. (Nepal, Bangladesh, Sri Lanka, Pakistan, China)

Science :

- Try the **activity 1.1** of **page no. 1** and write observations in your science notebook.
- Write a note on, “How forests influence the quality of air, soil and water resources.”

Hindi:-

- Learn and write the **Q & A** of **Lesson no – 1** of Prose & poetry.
- Write an Essay on:
 - मेरे सपनों का भारत

संकेत बिंदु

- भूमिका • भौगोलिक स्थिति • औद्योगिक विकास
- विभिन्न परियोजनाएँ • उपसंहार

Odia -

- ରଚନା :-

1. ଓଡ଼ିଶାର ଐତିହ୍ୟ ଓ ଗୌରବ

- ଉପକ୍ରମ
- ଏହାର ଅବସ୍ଥିତି
- ଓଡ଼ିଶାର ପର୍ବପର୍ବାଣି ଓ ଧର୍ମୀୟ ଭାବ
- ଓଡ଼ିଶାର ଶିଳ୍ପ ଓ କୃଷି
- ଓଡ଼ିଶାର ପ୍ରାକୃତିକ ସୌନ୍ଦର୍ଯ୍ୟ
- ଓଡ଼ିଶାର ତାପମାତ୍ରା
- ଶେଷ କଥା

2. ମୋବାଇଲ ଓ ବିଦ୍ୟାର୍ଥୀ

- ଉପକ୍ରମ
- ମୋବାଇଲର ଉପାଦେୟତା
- ବିଦ୍ୟାର୍ଥୀ ଜୀବନର ମୋବାଇଲର ସ୍ଥାନ
- ଉପସଂହାର

Mathematics:-

1. Rationalise the denominator:

i) $\frac{\sqrt{5}+\sqrt{3}}{\sqrt{5}-\sqrt{3}}$

ii) $\frac{7+3\sqrt{5}}{3+\sqrt{5}}$

iii) $\frac{7-3\sqrt{5}}{3-\sqrt{5}}$

iv) $\frac{4\sqrt{3}+5\sqrt{2}}{\sqrt{48}+\sqrt{18}}$

v) $\frac{5+\sqrt{3}}{7-4\sqrt{3}}$

2. Simplify

(i) $\frac{1}{2-\sqrt{3}} - \frac{1}{\sqrt{3}+\sqrt{2}} + \frac{5}{3-\sqrt{2}}$

(ii) $\sqrt[4]{625} - 4 \times \sqrt[3]{64} + 20 \times \sqrt[5]{32}$

(iii) $\sqrt{63} - 5\sqrt{28} + 11\sqrt{7}$

(iv) $\frac{2+\sqrt{3}}{2-\sqrt{3}} - \frac{2-\sqrt{3}}{2+\sqrt{3}}$

3. if $a = \frac{1}{7-4\sqrt{3}}$ and $b = \frac{1}{7+4\sqrt{3}}$ then find the value of $a^2 + b^2$

4. Find the value of a and b in the following

(i) $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a-b\sqrt{3}$

(ii) $\frac{\sqrt{2}+\sqrt{3}}{3\sqrt{2}-2\sqrt{3}} = a+b\sqrt{6}$

5. Express the following in the $\frac{p}{q}$ form the p and q are integers and $q \neq 0$

(i) $8.\overline{325}$

(ii) $0.\overline{159}$

(iii) $1.00\overline{49}$

(iv) $0.\overline{47}$

(v) $125.\overline{3}$

(vi) $0.\overline{37}$

6. Represent $\sqrt{10.3}$ on the number line.

7. Prove that: i) $\left(\frac{x^a}{x^b}\right)^{a^2+ab+b^2} \times \left(\frac{x^b}{x^c}\right)^{b^2+bc+c^2} \times \left(\frac{x^c}{x^a}\right)^{c^2+ca+a^2} = 1$

ii) $\left(\frac{x^a}{x^b}\right)^c \times \left(\frac{x^b}{x^c}\right)^a \times \left(\frac{x^c}{x^a}\right)^b = 1$

iii) $\frac{1}{1+x^{a-b}} + \frac{1}{1+x^{b-a}} = 1$

8. Simplify

$$\frac{4\sqrt{2}}{\sqrt{15}-3\sqrt{2}} + \frac{3\sqrt{5}}{\sqrt{10}-\sqrt{3}} + \frac{5\sqrt{3}}{\sqrt{6}+\sqrt{5}}$$

9. Find the value $\{[(625)^{-1/2}]^{-1/4}\}^2$

10. Evaluate: i) $\left(\frac{32}{243}\right)^{-4/5}$ ii) $\left(\frac{64}{25}\right)^{-3/2}$

11. Evaluate: $\frac{15}{\sqrt{10}+\sqrt{20}+\sqrt{40}-\sqrt{5}-\sqrt{80}}$ when it is given that $\sqrt{5} = 2.2$ and $\sqrt{10} = 3.2$


12. Evaluate: i) $(3^2+4^2)^{1/2}$ ii) $(1^3+2^3+3^3)^{1/2}$

13. Factorize: (1) $2x^2 - 7x - 15$

(2) $10x^2 + 3x - 4$ (Refer Class - VIII)

(3) $x^2 - 4x - 21$

Last date of submission of Holiday Homework is	: 27-06-2022
Summer vacation	: 05-06-2022 to 19-06-2022
School reopens on	: 20-06-20 (Monday)
School Timings after Vacation	: 10:45 AM to 04:10 PM.


Principal