

KENDRIYA VIDYALAYA SECL DHANPURI SUMMER VACATION
HOMEWORK CLASS – 10TH 2021

Short Answer Type Questions

1. Write the balanced chemical equations for the following reactions and identify the type of reaction in each case.
 - (a) Nitrogen gas is treated with hydrogen gas in the presence of a catalyst at 773K to form ammonia gas.
 - (b) Sodium hydroxide solution is treated with acetic acid to form sodium acetate and water.
 - (c) Ethanol is warmed with ethanoic acid to form ethyl acetate in the presence of concentrated H_2SO_4 .
 - (d) Ethene is burnt in the presence of oxygen to form carbon dioxide, water and releases heat and light.
2. Write the balanced chemical equations for the following reactions and identify the type of reaction in each case.
 - (a) Thermit reaction, iron (III) oxide reacts with aluminium and gives molten iron and aluminium oxide.
 - (b) Magnesium ribbon is burnt in an atmosphere of nitrogen gas to form solid magnesium nitride.
 - (c) Chlorine gas is passed in an aqueous potassium iodide solution to form potassium chloride solution and solid iodine.
 - (d) Ethanol is burnt in air to form carbon dioxide, water and releases heat.
3. Complete the missing components/variables given as x and y in the following reactions
 - (a) $\text{Pb}(\text{NO}_3)_2 (\text{aq}) + 2\text{KI}(\text{aq}) \longrightarrow \text{PbI}_2 (x) + 2\text{KNO}_3 (y)$
 - (b) $\text{Cu}(\text{s}) + 2\text{AgNO}_3(\text{aq}) \longrightarrow \text{Cu}(\text{NO}_3)_2(\text{aq}) + x(\text{s})$
 - (c) $\text{Zn}(\text{s}) + \text{H}_2\text{SO}_4(\text{aq}) \longrightarrow \text{ZnSO}_4(x) + \text{H}_2(y)$
 - (d) $\text{CaCO}_3(\text{s}) \xrightarrow{x} \text{CaO}(\text{s}) + \text{CO}_2(\text{g})$
4. Which among the following changes are exothermic or endothermic in nature?

- (a) Decomposition of ferrous sulphate
- (b) Dilution of sulphuric acid
- (c) Dissolution of sodium hydroxide in water
- (d) Dissolution of ammonium chloride in water

5. Identify the reducing agent in the following reactions

- (a) $4\text{NH}_3 + 5\text{O}_2 \rightarrow 4\text{NO} + 6\text{H}_2\text{O}$
- (b) $\text{H}_2\text{O} + \text{F}_2 \rightarrow \text{HF} + \text{HOF}$
- (c) $\text{Fe}_2\text{O}_3 + 3\text{CO} \rightarrow 2\text{Fe} + 3\text{CO}_2$
- (d) $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$

6. Identify the oxidising agent (oxidant) in the following reactions

- (a) $\text{Pb}_3\text{O}_4 + 8\text{HCl} \rightarrow 3\text{PbCl}_2 + \text{Cl}_2 + 4\text{H}_2\text{O}$
- (b) $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$
- (c) $\text{CuSO}_4 + \text{Zn} \rightarrow \text{Cu} + \text{ZnSO}_4$
- (d) $\text{V}_2\text{O}_5 + 5\text{Ca} \rightarrow 2\text{V} + 5\text{CaO}$
- (e) $3\text{Fe} + 4\text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + 4\text{H}_2$
- (f) $\text{CuO} + \text{H}_2 \rightarrow \text{Cu} + \text{H}_2\text{O}$

7. Write the balanced chemical equations for the following reactions

- (a) Sodium carbonate on reaction with hydrochloric acid in equal molar concentrations gives sodium chloride and sodium hydrogencarbonate.
- (b) Sodium hydrogencarbonate on reaction with hydrochloric acid gives sodium chloride, water and liberates carbon dioxide.
- (c) Copper sulphate on treatment with potassium iodide precipitates cuprous iodide (Cu_2I_2), liberates iodine gas and also forms potassium sulphate.

8. A solution of potassium chloride when mixed with silver nitrate solution, an insoluble white substance is formed. Write the chemical reaction involved and also mention the type of

the chemical reaction?

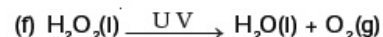
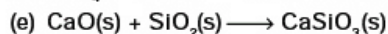
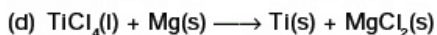
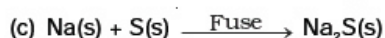
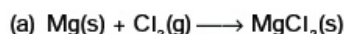
9. Ferrous sulphate decomposes with the evolution of a gas having a characteristic odour of burning sulphur. Write the chemical reaction involved and identify the type of reaction.
10. Why do fire flies glow at night?
11. Grapes hanging on the plant do not ferment but after being plucked from the plant can be fermented. Under what conditions do these grapes ferment? Is it a chemical or a physical change?
12. Which among the following are physical or chemical changes?
 - (a) Evaporation of petrol
 - (b) Burning of Liquefied Petroleum Gas (LPG)
 - (c) Heating of an iron rod to red hot.
 - (d) Curdling of milk
 - (e) Sublimation of solid ammonium chloride
13. During the reaction of some metals with dilute hydrochloric acid, following observations were made.
 - (a) Silver metal does not show any change
 - (b) The temperature of the reaction mixture rises when aluminium (Al) is added.
 - (c) The reaction of sodium metal is found to be highly explosive
 - (d) Some bubbles of a gas are seen when lead (Pb) is reacted with the acid.Explain these observations giving suitable reasons.
14. A substance X, which is an oxide of a group 2 element, is used intensively in the cement industry. This element is present in bones also. On treatment with water it forms a solution which turns red litmus blue. Identify X and also write the chemical reactions involved.
15. Write a balanced chemical equation for each of the following reactions and also classify them.
 - (a) Lead acetate solution is treated with dilute hydrochloric acid to form lead chloride

and acetic acid solution.

- (b) A piece of sodium metal is added to absolute ethanol to form sodium ethoxide and hydrogen gas.
- (c) Iron (III) oxide on heating with carbon monoxide gas reacts to form solid iron and liberates carbon dioxide gas.
- (d) Hydrogen sulphide gas reacts with oxygen gas to form solid sulphur and liquid water.

16. Why do we store silver chloride in dark coloured bottles?

17. Balance the following chemical equations and identify the type of chemical reaction.



18. A magnesium ribbon is burnt in oxygen to give a white compound X accompanied by emission of light. If the burning ribbon is now placed in an atmosphere of nitrogen, it continues to burn and forms a compound Y.

- (a) Write the chemical formulae of X and Y.
- (b) Write a balanced chemical equation, when X is dissolved in water.

19. Zinc liberates hydrogen gas when reacted with dilute hydrochloric acid, whereas copper does not. Explain why?

20. A silver article generally turns black when kept in the open for a few days. The article when rubbed with toothpaste again starts shining.

- (a) Why do silver articles turn black when kept in the open for a few days? Name the phenomenon involved.

- (b) Name the black substance formed and give its chemical formula.

Long Answer Type Questions

1. On heating blue coloured powder of copper (II) nitrate in a boiling tube, copper oxide (black), oxygen gas and a brown gas X is formed
 - (a) Write a balanced chemical equation of the reaction.
 - (b) Identity the brown gas X evolved.
 - (c) Identity the type of reaction.
 - (d) What could be the pH range of aqueous solution of the gas X?
2. Give the characteristic tests for the following gases
 - (a) CO_2
 - (b) SO_2
 - (c) O_2
 - (d) H_2
3. What happens when a piece of
 - (a) zinc metal is added to copper sulphate solution?
 - (b) aluminium metal is added to dilute hydrochloric acid?
 - (c) silver metal is added to copper sulphate solution?Also, write the balanced chemical equation if the reaction occurs
4. What happens when zinc granules are treated with dilute solution of H_2SO_4 , HCl , HNO_3 , NaCl and NaOH , also write the chemical equations if reaction occurs.
5. On adding a drop of barium chloride solution to an aqueous solution of sodium sulphite, white precipitate is obtained.
 - (a) Write a balanced chemical equation of the reaction involved
 - (b) What other name can be given to this precipitation reaction?
 - (c) On adding dilute hydrochloric acid to the reaction mixture, white precipitate disappears. Why?
6. You are provided with two containers made up of copper and aluminium. You are also provided with solutions of dilute HCl , dilute HNO_3 , ZnCl_2 and H_2O . In which of the above containers these solutions can be kept?

KENDRIYA VIDYALAYA SECL DHANPURI

SUMMER VACATION

HOLIDAY HOMEWORK

CLASS 10TH

GEOGRAPHY:

CHAPTER: 1- RESOURCES AND DEVELOPMENT

I. Answer the following questions:

1. What is a Resource?
2. What is Sustainable Development?
3. Classification of resources:

On the basis of origin

On the basis of exhaustibility

On the basis of ownership

On the basis of status of development

ECONOMICS

CHAPTER 1- DEVELOPMENT

1. What is National Income?
2. What is meant by Per capita income?
3. What is Human Development?
4. What is Human Development Index?
5. What is meant by Economic Growth and Economic Development?
6. Expand UNDP, WDR, IMR, NAR, PDS and HDI.
7. What is Infant Mortality Rate?
8. What is Literacy rate?
9. What is Net Attendance Ratio

B. Literacy rate

HISTORY

1. Briefly explain Greek war of Independence.

Greek under Ottoman Empire

Growth of Nationalism sparked the struggle.

Got support from Western Europeans

Poets and artists lauded Greece

Finally with Treaty of Constantinople Greece became independent.

2. 1830's is called the year of Economic hardship.

Increase in population in Europe,

Unemployment among people.

Small producer in town faced competition.

Rise in food prices led to poverty.

3. What were the measures taken by French revolutionaries to forge a sense of collective identity?

Through the ideas of "la patrie and le citiyou

New tricolor

4. How was the history of nationalism in Britain unlike the rest of Europe?

POLITICAL SCIENCE

1. Make a Manuscript and on a leaf Write the preamble of Indian constitution .

KV SECL DHANPURI

SUMMER VACATION HOMEWORK (2021-22)

SUBJECT ENGLISH

CLASS - X

Q.1. Write an article expressing your views on positive side of Online Classes.

Q.2. Write and learn all the question answers of the chapter which have been discussed yet.

Q 3. Write a letter to The Editor of an English Daily about your views on the opening of schools amid COVID-19 epidemic.

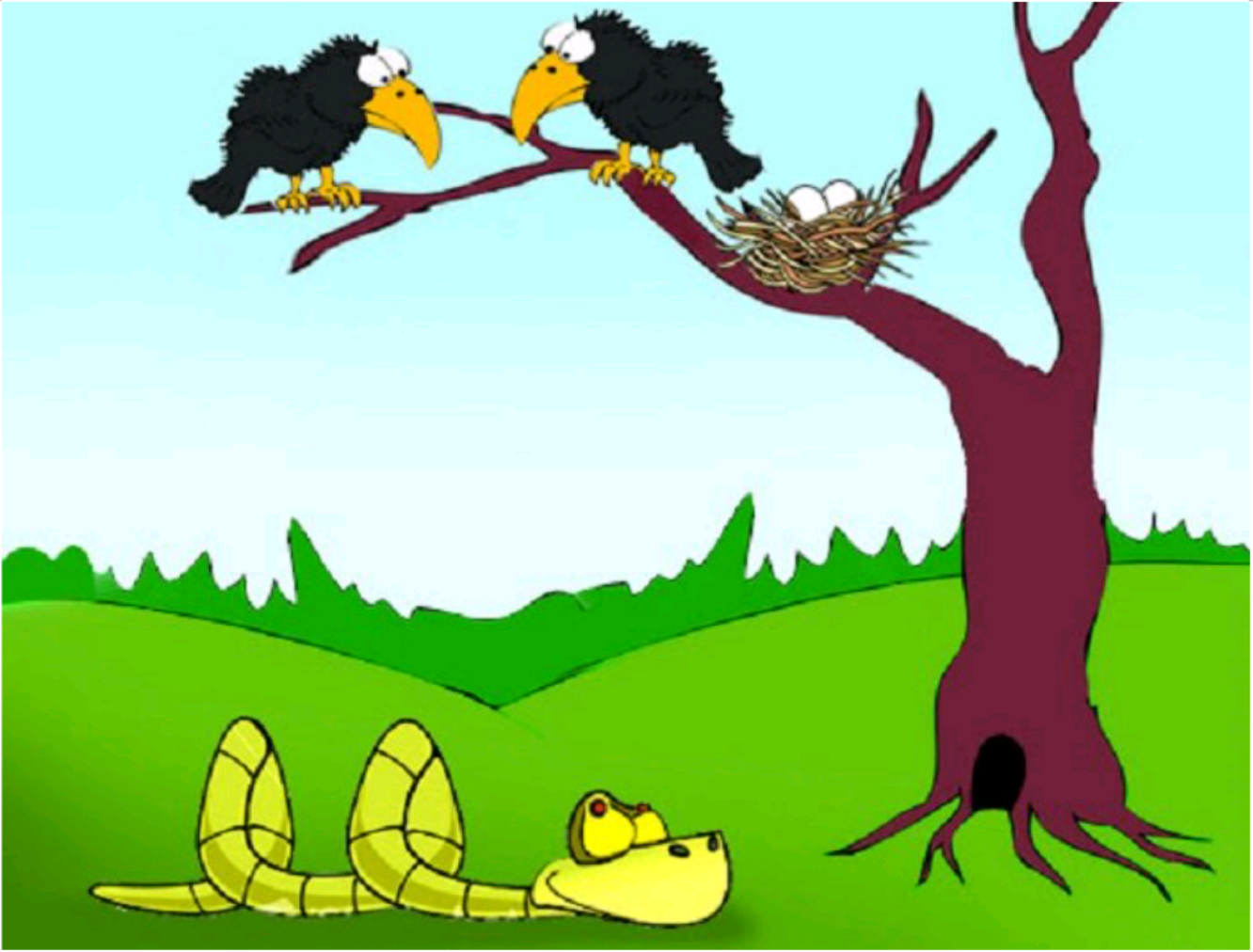
Q 4. Prepare a project file on your favourite poet, write his bio-sketch, major works and achievements and also write the central idea of one of his poems.

Q.5. Make a weekly diary entry. (5 Entries)

Q.6 Collect the following information regarding Nagaland State.

1. When did it come in existence?
2. Name some important festivals of Nagaland.
3. Name some famous sports persons of Nagaland.
4. Write about flora and fauna of Nagaland (100 words)
5. Natural resources of Nagaland (100 words)

Q.7 Write story on the following visual inputs.



Q 8. Solve Pisa Based Questions (CCT ASSIGNMENT) For English (next page).

PRINT READING UNIT-6
Tall Buildings

“Tall buildings” is an article from a Norwegian magazine published in 2006.

Figure 1: Tall buildings of the world
Figure 1 shows the number of buildings of at least 30 storeys that have been built, or are under construction this includes buildings that have been proposed since January 2001.

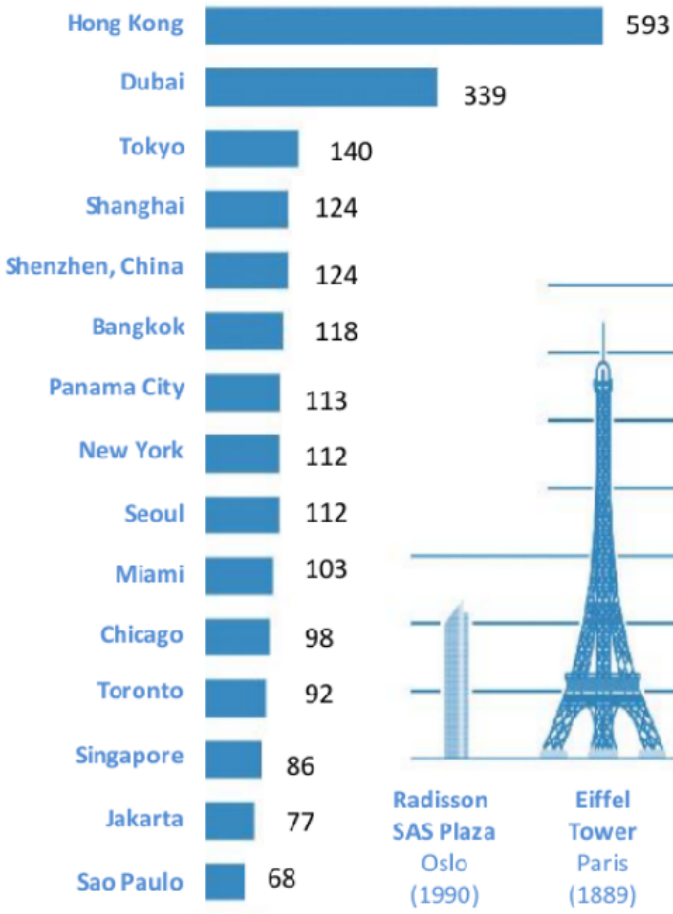
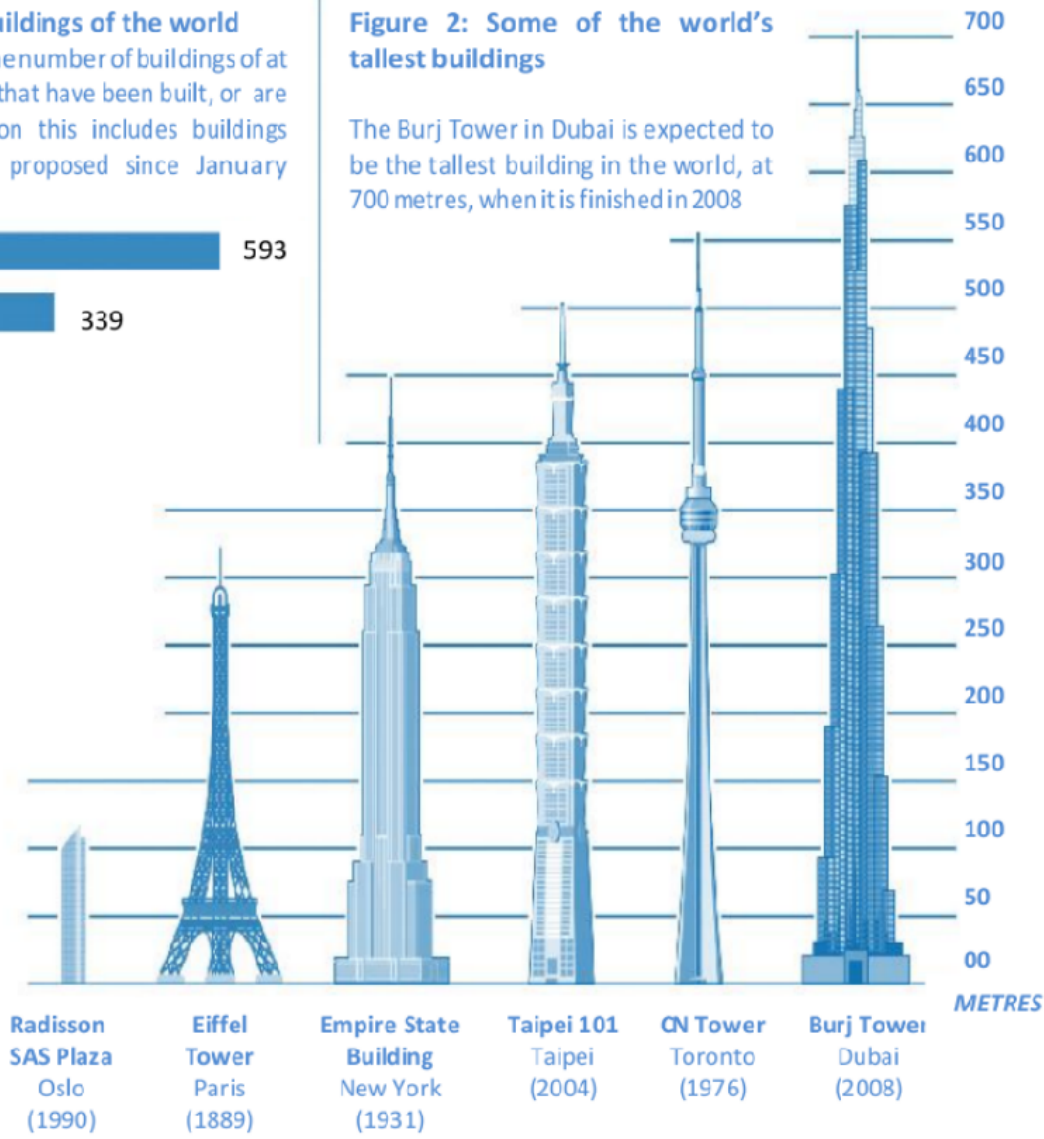


Figure 2: Some of the world's tallest buildings

The Burj Tower in Dubai is expected to be the tallest building in the world, at 700 metres, when it is finished in 2008



This text juxtaposes two figures that are loosely related in terms of their content. Both figures are about tall buildings in the world: Figure 1 shows the number of tall buildings in various cities, proposed or already built, while Figure 2 shows some of the world's tallest buildings. Both Figure 1 and Figure 2 are graphs. Although each figure is introduced by a small piece of explanatory prose, the substantive information of this text is given in the two figures, making the overall text format non-continuous. The text type is description, while the situation of this text is educational, since it appeared in a magazine for students. The piece begins with a brief introduction explaining its context, both in terms of time (the piece was published in 2006) and place (the magazine is Norwegian). One of the reasons why this unit was not chosen for inclusion in the main survey was because of concerns about the ephemeral nature of the material: as more and more tall buildings are built in the world, the material will very quickly become out-dated.

QUESTION 1: Tall Buildings

When the magazine article was PUBLISHED, which of the BUILDINGS in FIGURE 2 was the tallest completed BUILDING?

Framework Characteristics

Situation	Educational
Medium	Print
Text format	Non-continuous
Text type	Exposition
Aspect	Access and retrieve: Retrieve information
Question intent	Locate information that is explicitly stated in a graph
Item format	Closed constructed response

QUESTION 2: Tall Buildings

What kind of information does FIGURE 1 provide?

- A. A comparison of the heights of different BUILDINGS.
- B. The total NUMBER of BUILDINGS in different cities.
- C. The NUMBER of BUILDINGS above a certain height in VARIOUS cities.
- D. Information ABOUT styles of BUILDINGS in different cities.

Framework Characteristics

Situation	Educational
Medium	Print
Text format	Non-continuous
Text type	Exposition
Aspect	Integrate and interpret: Form a broad understanding
Question intent	Generalise about the type of information presented in a graph
Item format	Multiple choice

QUESTION 3: Tall Buildings

The Radisson SAS Plaza in Oslo, Norway is only 117 meters tall. Why has it been INCLUDED in FIGURE 2?

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Framework Characteristics

Situation	Educational
Medium	Print
Text format	Non-continuous
Text type	Exposition
Aspect	Reflect and evaluate: Reflect on and evaluate the content of a text
Question intent	Recognise the influence of reader’s perspective on the way a text is constructed
Item format	Multiple choice

QUESTION 4: Tall Buildings

SUPPOSE that information ABOUT tall BUILDINGS was presented again in an article like this in twenty years' time.

Listed below are two FEATURES of the original article. Show whether or not these FEATURES are likely to change in twenty years' time, by circling either "Yes" or "No" in the table below.

Feature of Article	Is it likely to change in twenty years?
The title of Figure 2.	Yes / No
The numbers of buildings shown in Figure 1.	Yes / No

Framework Characteristics

Situation	Educational
Medium	Print
Text format	Non-continuous
Text type	Exposition
Aspect	Reflect and evaluate: Reflect on and evaluate the content of a text
Question intent	Distinguish between structural features and content of a set of graphs
Item format	Complex multiple choice

SUMMER VACATIONS HOMEWORK

CLASS - Xth , SUBJECT - MATHS

Q.01- The decimal expansion of rational number $43/2453$ will terminate after how many places of decimals.

Q.02- Find the largest number that will divide 398 , 436 , 542 leaving remainder 7 , 11 , 15.

Q.03- LCM and HCF of two numbers are 9 and 459 , if one number is 27 , then find the other number.

Q.04- Find HCF of 865 and 255 by Euclid's division lemma.

Q.05- Find the largest number which divides 70 and 125 leaving remainder 5 and 8.

Q.06- Find the LCM of 96 and 360 by Prime Factorisation method.

Q.07- Prove that $\sqrt{5}$ is an irrational number.

Q.08- Prove that following are irrational numbers

I) $2/\sqrt{3}$

II) $3+\sqrt{5}$

III) $2+3\sqrt{5}$

IV) $\sqrt{5}-\sqrt{2}$

Q.09- Explain why $(17 \times 5 \times 11 \times 3 \times 2 + 2 + 11)$ is a composite number.

Q.10- Can two numbers have 15 as their HCF and 175 as their LCM ? Give reason for your answer.

Q.11- Three alarm clocks rings at intervals of 4 , 12 , 20 minutes. If they starts ringing together , after how much time will they starts next ring together.

Q.12- If sum of zeros of quadric polynomial is $(3x^2-kx+6)$ is (3) , then find the value of k.

Q.13- If α and β are the zeros of polynomial ax^2+bx+c , then find the value of α^2 and β^2 .

Q.14- Find the quadratic polynomial whose zeros are as follows

I) -4 and -5

II) $3+\sqrt{2}$ and $3-\sqrt{2}$

Q.15- Find the zeros of quadratic polynomial $\sqrt{3}x^2-8x+4\sqrt{3}$.

Q.16- Verify that 2 , 3 , $\frac{1}{2}$ are the zeros of the polynomial $p(x) = 2x^3-11x^2+17x-6$,

Q.17- Complete chapter 2nd.

Q.18- Revise chapter 1st and chapter 2nd.

कक्षा -10 संस्कृत

- 1- पढ़ाए गए पाठों का पुनरावृत्ति करना है
- 2- पढ़ाए गए पाठों के प्रश्न उत्तर कॉपी में पूर्ण रूप से लिखना है
- 3- 1 से 100 तक की गणना संस्कृत में लिखना है
- 4- 5 पेज सुलेख संस्कृत में लिखना है
- 5- बुद्धि बलवती सदा पाठ का सारांश हिंदी में लिखना है!

केन्द्रीय विद्यालय एस.ई.सी.एल. धनपुरी
ग्रीष्मकालीन अवकाश गृह कार्य
कक्षा-10 (सत्र 2021-22)
विषय: हिंदी

प्रश्न-1 'रस' पर 12 से 15 पेज की एक फाइल तैयार करें।
सहायक बिंदु: रस का बिंदु, रस के अंग, सभी भेद उदाहरण सहित