

IMPORTANT NOTE

The **English** text books of classes I to VIII have been changed w.e.f. session 2017-18. Kindly refer to the new prescribed text books for the latest syllabus (specially for the **LITERATURE / READER** section). In case of any query, students may get it clarified from the concerned teacher of English.

The uploaded Terminal Question Papers are based on the previous syllabus.

WORK SHEET
SUBJECT- Maths
Chapter 1- Rational Numbers

CLASS- VIII

Q1. Fill in the blanks:

- a) Rational numbers are numbers of the form _____ where p,q are integers and $q \neq 0$.
- b) Rational numbers are not closed under _____.
- c) _____ is called the additive identity of rational numbers.
- d) Zero has _____ reciprocal.
- e) The numbers _____ and _____ are their own reciprocals.
- f) _____ is the multiplicative inverse of $3\frac{1}{3}$.
- g) The rational number that is equal to its negative is _____.
- h) There are _____ rational numbers between any two given rational numbers.
- i) Nine times the reciprocal of a number is 3. The number is _____.
- j) _____ $+\frac{3}{7} = -1$.

Q2. Write the additive inverse of

- a) $\frac{2}{-9}$ b) $\frac{-6}{-5}$

Q3. Write the multiplicative inverse of

- a) -1 b) $\frac{-13}{19}$

Q4. Verify that $-(-a)=a$ is true for $a = \frac{-19}{21}$

Q5. Verify the property: $ax(b+ c) = axb + axc$ by taking $a = \frac{-5}{2}$, $b = -2$, $c = \frac{11}{3}$

Q6. Find five rational numbers between $\frac{-1}{2}$ and 2.

Q7. Arrange in ascending order $\frac{-3}{4}$, $\frac{5}{-12}$, $\frac{-9}{16}$, $\frac{7}{-24}$

Q8. Represent $\frac{-5}{6}$, $\frac{7}{4}$, $\frac{9}{-11}$ on the number line.

Q9. Find $\frac{3}{7} + (\frac{-6}{11}) + (\frac{-8}{21}) + (\frac{5}{22})$

Q10. Using appropriate properties, find

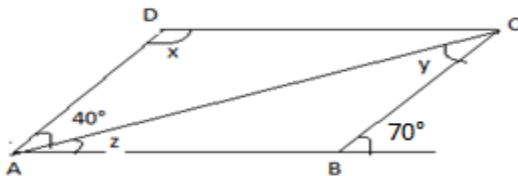
i) $\frac{2}{5} \times \frac{-3}{7} - \frac{1}{14} - \frac{3}{7} \times \frac{3}{5}$

ii) $\frac{1}{2} - \frac{1}{6} \times \frac{-2}{3} + \frac{7}{9} \times \frac{-1}{6}$

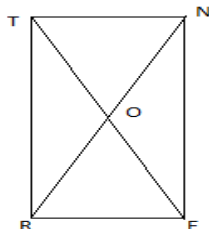
WORK SHEET
SUBJECT- Maths
Chapter 3- Quadrilateral

CLASS- VIII

- 1) In a quadrilateral if one pair of opposite sides is equal and parallel, the figure is.....
- 2) If one angle of a parallelogram is a right angle, then it is necessarily a
- 3) If opposite angles of a quadrilateral are equal, then it is necessarily a
- 4) If the consecutive sides of a parallelogram are equal, then it is necessarily a
- 5) Diagonals necessarily bisect opposite angles in a
- 6) The angles of a quadrilateral are in the ratio 1:2:3:4. Find the measure of its four angles.
- 7) The measure of one angle of a parallelogram is 80° . Find the measure of other angles.
- 8) The sum of interior angles of a polygon of 10 sides is.....
- 9) One of a quadrilateral is 108° and other three angles are equal, then the value of each equal angle is.....
- 10) Exterior angle of a regular polygon is 24° . Find the number of sides of the polygon.
- 11) Find the values of x , y and z in the given parallelogram ABCD

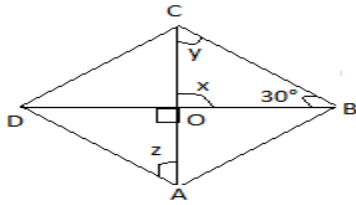


- 12) Explain why a rectangle is a convex polygon.
- 13) RENT is a rectangle its diagonals meet at O. Find x , $OR = 2x + 4$ and $OT = 3x + 1$

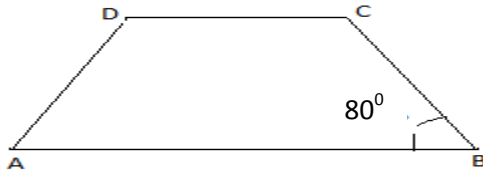


- 14) Write three properties of a parallelogram.
- 15) What is the minimum possible interior angle of a regular polygon and why?

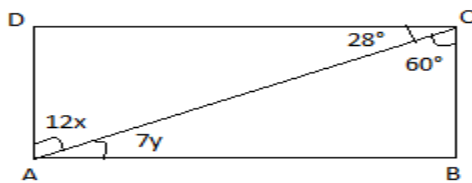
16) Find the values of x , y and z of a rectangle ABCD



17) ABCD is an isosceles trapezium in which AB and CD are parallel. Find the other angles.

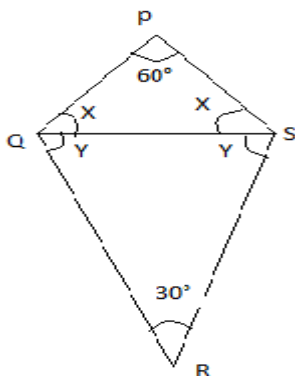


18) ABCD is a parallelogram. Find x and y .



19) Write the difference between diagonals of a square and a rhombus.

20) Find the values of x and y in the given figure:



WORK SHEET
SUBJECT- Science
Lesson-1: Food Production

CLASS- VIII

Q.1. Fill in the blanks:-

1. The practice of growing fruits, vegetables and ornamental plants is called _____ .
2. A _____ field is one that is left uncultivated for one or more seasons.
3. In the cold storage, the temperature is maintained between _____ .
4. A _____ can be used for harvesting, threshing and winnowing.
5. Removing the chaff from the grain is called _____ .
6. The _____ crop needs to be transplanted.
7. _____ protein is better than plant protein.
8. The meat of goat, sheep, pigs and cow is called _____ meat.
9. Protein present in egg is called _____ .
10. Seeds have to be shown at the right _____ and with adequate space in between.

Q.2. Answer the following in one word :-

1. One nitrogen fixing bacteria.
2. The process of separation of grains from crop plant.
3. One rabi crop.
4. One kharif crop.
5. Grains stocked for emergency.
6. Natural way of controlling weeds, plant pests and diseases.
7. Removing weeds from a field.
8. Mutually beneficial association between two organisms.
9. Scattering seeds over the field by hand.
10. Chemicals which kills disease causing fungi.
11. Process of breaking big chunks of soil.
12. Adding fertilizers and manure to the soil before the sowing of seeds.

Q.3. Define the following:-

1. Nitrogen Fixation.
2. Compost
3. Green manure
4. Eutrophication
5. Salinization
6. Ground water
7. Surface irrigation
8. Weeds
9. Pests
10. Pesticide
11. Rodenticide
12. Insecticide
13. Herbarium
14. White meat
15. Poultry

Q.4. Give reasons for the following :-

1. Animal proteins are considered better than plant protein.
2. Crop rotation is considered good agricultural practice.
3. Pulses are alternated with crops like wheat and paddy.
4. Biological control is preferred over chemical control of pests and insects.
5. Manure is better than chemical fertilizers.

Q.5. Differentiate between:-

1. Manure and fertilizers.
2. Drip Irrigation and furrow irrigation.
3. Permanent canal and inundation canal.
4. Bio fertilizers and chemical fertilizers.

Q.6. Draw nitrogen cycle.

WORK SHEET
SUBJECT- Science
Lesson-6: Metals and Non-Metals

CLASS- VIII

Q.1 Fill in the blanks:

- a) Phosphorus is a very _____ non-metal.
- b) Metals are _____ conductors of heat and _____.
- c) Iron is _____ reactive than copper.
- d) Metal reacts with acids to produce _____ gas.

Q.2 Some properties are listed in the following table. Distinguish between metals and non-metals on the basis of these properties.

PROPERTIES	METALS	NON-METALS
1. Appearance 2. Hardness 3. Malleability 4. Ductility 5. Heat 6. Conduction 7. Conduction of Electricity		

Q.3 Give reasons of the following:-

- a) Aluminum foils are used to wrap food items.
- b) Immersion rods for heating liquids are made up of metallic substances.
- c) Copper cannot displace zinc from its salt solution.
- d) Sodium and potassium are stored in kerosene.

Q.4 Can you store lemon pickle in aluminium utensil? Explain.

Q.5 What happens when:

- a) Dilute sulphuric acid is poured in copper plate?
- b) Iron nails are placed in copper sulphate solution?

WORK SHEET
SUBJECT- Social Science

History Chapter-1: Modern India, Geography Chapter-1: Resources

CLASS- VIII

Q.1 Define the terms:

- | | |
|----------------------|-------------------------|
| i) Calligraphist | viii) Natural resources |
| ii) Chronology | ix) Resources |
| iii) Colonization | x) Potential resources |
| iv) Census | xi) Recycling |
| v) Modern period | xii) Stock of resources |
| vi) Bio gas | xiii) Technology |
| vii) Human resources | xiv) Utility |

Q.2 Choose the correct option:

- i) Which one of the following is a human made resources
a. medicine to treat cancer b. spring water c. tropical forest
- ii) Biotic resources are
a. derived from living things b. made by human beings
c. derived from non living things
- iii) Which one of the following is a natural resource
a. forests b. airport c. flyover d. tractor
- iv) Which one of the following is not an abiotic resource?
a. soils b. rocks c. plants d. minerals
- v) Which one of the following is a non renewable resources
a. coal b. solar energy c. water d. forest
- vi) Which one of the following has no economic value
a. iron ore b. petroleum c. natural beauty d. car
- vii) Which one of the following is an inexhaustible resources
a. forests b. wildlife c. sunlight d. fossil fuels
- viii) Technology is
a. natural resource b. a human resource
c. a man made resource d. none of these
- ix) Which one of the following resources is nonrenewable but can be recycled?
a. coal b. water c. wood d. iron
- x) Sustainable development seeks to prevent
a. wastage of resources b. pollution
c. loss of biodiversity d. all of these

- xi) A history of British India was written by
 - a. Lord Mount Batten
 - b. James Mill
 - c. Warren Hastings
 - d. Lord Dalhousie
- xii) The British thought surveys were important for
 - a. country's economy
 - b. effective administration
 - c. writing history
 - d. country's defence
- xiii) The British preserved official documents
 - a. to study the progress made by the country in the past
 - b. to study the notes and reports prepared in the past
 - c. to make their copies and use them in modern times
 - d. all of the above
- xiv) Census operations were held after every
 - a. 5 years
 - b. 10 years
 - c. 15 years
 - d. 20 years
- xv) The wars and administrative actions of rulers are of greatest interest to scholars of
 - a. ancient history
 - b. modern history
 - c. political history
 - d. social history
- xvi) The British began to colonise India around the
 - a. fifteenth century
 - b. mid eighteenth century
 - c. late eighteenth century
 - d. mid nineteenth century
- xvii) The British completed their first census survey of India in
 - a. 1850
 - b. 1871
 - c. 1947
 - d. 1950
- xviii) The division of history into different time periods is called:
 - a. Periodisation
 - b. Mercantilism
 - c. Colonization

Q.3 Answer the following questions:

- i) Mention any three distinctive features of modern period.
- ii) Give two examples each of primary and secondary source material.
- iii) What is periodisation? Why is it useful?
- iv) Why did Britishers conducted revenue surveys In India?
- v) Why did the British build record rooms in their administrative offices?
- vi) What are the four types of values associated with resources?
- vii) What do you mean by ubiquitous resources?
- viii) Why are resources distributed unequally over the earth?
- ix) Differentiate between human resources and manmade resources. Give suitable example.
- x) Differentiate between potential and actual resources.
- xi) Differentiate between renewable and non renewable resources. Give example.
- xii) How can we classify natural resources on the basis of their origin?
- xiii) What steps need to be taken to conserve resources?

Q. 4 Answer the following questions in 100 words:

- i) Describe James Mill's periodisation of Indian history. Why was it unacceptable to the historians of independent India? On what basis have they periodised Indian history?
- ii) What is sustainable development? Why is it required? Mention any three ways in which resources can be sustained.

**WORK SHEET
SUBJECT- MATHS**

Chapter-2: Linear Equations in one variable

CLASS- VIII

1. The present age of Sahil's mother is three times the present age of Sahil. After 5 years their ages will add to 66 years. Find their present ages.
2. The ages of Rahul and Anshul are in ratio 5:7. Four years later the sum of these ages will be 56 years .What are their present ages?
3. Fifteen years from now Ravi's age will be four times his present age. What is Ravi's present age?
4. Rahul's father is 26 years younger than Rahul's grandfather and 29 years older than Rahul. The sum of the ages of all the three is 135 years. What is the age of each one of them ?
5. Shobo's mother's present age is 6 times Shobo's present age. Shobo's age five years from now will be one-third of his mother's present age. What are their present ages?
6. A grand-father is 10 times older than his grand-daughter. He is also 54 years older than her. What is his present age ?
7. Aman's age is three times his son's age.10 years ago he was 5 times his son's age. Find their present ages.
8. Two years ago Dilip was three times as old is his son and two years hence twice his age will be equal to five times that of his son. Find their present ages.
9. Present ages of Annu and Raj are in the ratio 4:5. Eight years from now the ratio of their ages will be 5:6. Find their present ages.
10. Ages of Mohan and Sohan are in the ratio 3:4. Find their present ages if sum of their ages is 35 years.
11. Three consecutive integers add up to 51. What are these integers?
12. Sum of three consecutive multiples of 11 is 363. Find these multiples.
13. The sum of three consecutive multiples of 8 is 888. Find the multiples.
14. Three consecutive integers are such that when they are taken in increasing order and multiplied by 2, 3 and 4 respectively, they add up to 74. Find these numbers.
15. Two numbers are in the ratio 5:3. If they differ by 18, what are the numbers?
16. Sum of two numbers is 95. If one exceed the other by 15. Find the numbers.
17. The no. of boys and girls in a class is in the ratio 7:5. The number of boys is 8 more than the number of girls. What is the total class strength?
18. A positive number is 5 times another number. If 21 is added to both the numbers, then one of the new numbers becomes twice the other new number, Find the numbers?

19. Lakshmi is a cashier in a bank. She has currency notes of denomination Rs 100, Rs 50 and Rs 10 respectively, the ratio of these notes is 2:3:5. The total cash with Lakshmi is Rs. 4, 00,000. How many notes of each denomination does she have?
20. Devasi has a total of Rs 590 as currency notes in the denominations of Rs 50, Rs 20 and Rs 10. The ratio of the number of Rs 50 notes and Rs 20 notes is 3:5. If she has a total of 25 notes in all, how many notes of each denomination does she have?
21. I have a total of Rs. 300 in coins of denomination Rs 1, Rs 2, Rs 5. The number of Rs 2 coins is 3 times the number of Rs 5 coins. The total number of coins is 160. How many of each denomination are with me?
22. The organizers of an essay competition decide that the winner in the competition gets a prize of Rs 100 and a participant who does not win will get Rs 25 . The total prize money distributed is Rs. 3,000. Find the no. of winners, if the total no. of participants is 63.
23. Sum of the digits of a two-digit number is 9. When we interchange the digits, it is found that the resulting new number is greater than the original by 27. What is that two –digit number?
24. One of the two digits of a two digit number is three times the other digit. If you interchange the digits of this two-digit number and add the resulting number to the original number, you get 88. What is the original number?
25. Half a herd of deer are grazing in the field and three fourth of them are playing nearby. The rest 9 are drinking water from the pond. Find the number of deer in the herd.
26. There is a narrow rectangular plot, reserved for a school, in Mahuli village. The length & breadth of the plot are in the ratio 11:4. At the rate of Rs. 100/metre it will cost the village panchayat Rs 75,000 to fence. What are the dimensions of the plot?
27. Hasaan buys two kinds of cloth material for school uniforms. Shirt material that costs him Rs 50 per meter and trouser material that costs him Rs 90 per meter. For every 3 meters of the shirt material, he buys 2 meters of the trouser material. He sells the materials at 12% and 10% profit respectively. If his total sale is Rs 36600, how much trouser material did he buy?
28. The denominator of a rational number is greater than its numerator by 8. If the numerator is increased by 17 and the denominator is decreased by 1 the number obtained is $\frac{3}{2}$. Find the rational number.
29. The sum of the digits of a two digit numbers is 10. If the number formed by reversing the digits is less than the original number by 36, find the original number.

30. Find x if $5x + \frac{7}{2} = \frac{3}{2}x - 14$

31. Solve the linear equations

a) $\frac{7y+6}{y+2} = \frac{-4}{3}$

b) $x + 7 - \frac{8x}{3} = \frac{17}{6} - \frac{5x}{2}$

c) $\frac{3t-2}{4} - \frac{2t+3}{3} = \frac{2}{3} - t$

**WORK SHEET
SUBJECT- MATHS**

Chapter-4: Construction of Quadrilaterals

CLASS- VIII

- Q1. Construct a quadrilateral ABCD in which $AB = 4.2\text{ cm}$, $BC = 6\text{ cm}$, $CD = 5.2\text{ cm}$. $DA = 5.2$ and $AC = 8\text{ cm}$.
- Q2. Construct a quadrilateral PQRS in which $PQ = 4.6\text{ cm}$, $RS = 4.3\text{ cm}$, $SP = 3.5\text{ cm}$ & $PR = 4\text{ cm}$.
- Q3. Construct a quadrilateral ABCD in which $AB = 3.5\text{ cm}$, $BC = 3.8\text{ cm}$, $CD = DA = 4.5\text{ cm}$ & diagonal $BD = 5.6\text{ cm}$.
- Q4. Construct a quadrilateral ABCD in which $AB = 3.6\text{ cm}$, $BC = 3.3\text{ cm}$, $AD = 2.7\text{ cm}$, diagonal $AC = 4.6\text{ cm}$ & $BD = 4\text{ cm}$.
- Q5. Construct a quadrilateral PQRS in which $QR = 7.5\text{ cm}$, $PR = PS = 6\text{ cm}$, $RS = 5\text{ cm}$ & $QS = 10\text{ cm}$. Measure the fourth side .
- Q6. Construct a quadrilateral PQRS in which $PQ = 6\text{ cm}$, $RS = 2.7\text{ cm}$, $QR = 5.6\text{ cm}$ angle $Q = 45^\circ$ & $\text{ang } R = 90^\circ$.
- Q7. Construct a quadrilateral ABCD in which $AB = 2.9\text{ cm}$, $BC = 3.2\text{ cm}$, $CD = 2.7\text{ cm}$, $DA = 3.4\text{ cm}$ and Angle $A = 70^\circ$.
- Q8. Construct a quadrilateral ABCD in which $AB = BC = 3.5\text{ cm}$, $AD = CD = 5.2\text{ cm}$ and Angle $ABC = 120^\circ$.
- Q9. Construct a quadrilateral ABCD in which $AB = 5.6\text{ cm}$, $BC = 4\text{ cm}$, $\text{Ang } A = 50^\circ$, $\text{Ang } B = 105^\circ$, and $\text{Ang } D = 80^\circ$.
- Q10. Construct a quadrilateral ABCD in which $AB = 4\text{ cm}$, $AC = 5\text{ cm}$, $AD = 5.5\text{ cm}$ and $\text{Ang } ABC = \text{Ang } ACD = 90^\circ$.
- Q11. Construct a parallelogram ABCD in which $AB = 5.2\text{ cm}$, $BC = 4.7\text{ cm}$ & $AC = 7.6\text{ cm}$.
- Q12. Construct a parallelogram ABCD in which $AB = 4.3\text{ cm}$, $BD = 6.8\text{ cm}$ & $AD = 4\text{ cm}$.
- Q13. Construct a parallelogram PQRS in which $QR = 6\text{ cm}$, $PQ = 4$ & $\text{Ang } PQR = 60^\circ$.
- Q14. Construct a parallelogram ABCD in which $CB = 5\text{ cm}$, $\text{BCD} = 120^\circ$ & $CD = 4.8\text{ cm}$.
- Q15. Construct a rectangle ABCD whose adjacent sides are 11 cm & 8.5 cm .
- Q16. Construct a square , each of whose sides measure 6.4 cm .
- Q17. Construct a square , each of whose diagonals measure 5.8 cm .
- Q18. Construct a rhombus whose diagonals are 6 cm & 8 cm .
- Q19. Construct a rhombus ABCD in which $AB = 4\text{ cm}$ & diagonal AC is 6.5 cm .
- Q20. Draw a rhombus whose side is 7.2 cm & one angle is 60° .

WORK SHEET SUBJECT- SCIENCE Chapter:- The Cell

CLASS- VIII

I. Fill up the blanks:

1. The lens of the microscope close to the specimen placed on stage is called _____.
2. A specimen is usually _____ before being viewed.
3. _____ are bean shaped cells, which regulates the opening of stomata.
4. Chromosomes carry _____ which passes on hereditary characters.
5. The matrix in which blood cells are suspended is called _____.
6. Cheek cells are _____ cells
7. Cell wall is made up of a carbohydrate called _____.
8. Various structures floating in cytoplasm are called _____.
9. Epidermal layers of root bears _____.
10. Vascular bundle consists of thick walled cells called _____.

I. Name the following :

1. Organisms made up of single cell.
2. Tissues forming vascular bundle.
3. These help to carry messages from one cell to other.
4. They contract and relax to make different parts of body moves.
5. Sac like structure filled with fluid.
6. Dense tangle of chromosome.
7. Disc shaped cells present in blood.
8. Algae with ribbon like chloroplasts zigzagging through it.

II. Give reasons for the following:

1. Plasma membrane is called selectively permeable.
2. Nucleus is called control room of cell.
3. Cell is called structural and functional unit of life.

III. Differentiate between the following:

1. Plant cell and animal cell.
2. Chloroplast and leucoplast.
3. Epithelial tissue and epidermal tissue.
4. Xylem and phloem.
5. Cell wall and cell membrane.

IV. Answer the following in brief:

1. Name two stains.
2. What are the different types of plastids and what do they do?
3. Name four types of animal tissues?
4. Why do we stain specimens before viewing them under microscope?

V. Draw well labelled diagram of the following :

1. Plant cell
2. Animal cell
3. Nerve cell

WORK SHEET
SUBJECT- SCIENCE
Chapter-: Force and Pressure

CLASS- VIII

Q1. Define the following terms:

- i) Force ii) Pressure iii) Streamline body

Q2. Name the following:

- i) The force acting opposite to the kinetic friction.
ii) The instrument used to measure the pressure difference.
iii) Pressure exerted by the atmosphere.
iv) Force exerted by the earth.

Q3. Answer the following questions:

- i) How is the gravitational force related to the mass of an object?
ii) Why can't we use a beam balance to measure the weight of a body?
iii) Give two examples each of harmful friction and useful friction.
iv) How is the pressure in the liquids related to the depth?
v) How do the rockets sent to space do not fall back on the earth?
vi) What will be the weight of an object on Jupiter, whose weight is 1000 Kg on the earth?
vii) Why the cutting edge of a knife is made sharp?

WORK SHEET SUBJECT- SOCIAL SCIENCE Unit-III Chapter-1 : The Constitution of India

CLASS- VIII

Q.1 Fill in the blanks to complete the Preamble to the Indian Constitution.

We, _____, having solemnly resolved to constitute _____ into
a _____, _____, _____, _____ and to secure to its
citizens ;

_____ social, economic and political;

Liberty of _____;

_____ of status and opportunity;

And to promote among them all _____ assuring the dignity of individuals and the _____
and _____ of the nation.

2. Identify the features of the Constitution from the following statements.

- There are two levels of government.
- President of the country is the constitutional head.
- To guarantee the citizens certain written rights.
- Citizens have complete freedom to follow any religion.
- Wealth should be shared equally by the society.
- An independent nation which has the right to take its own decision.

3. Identify the terms.

- The organ of the state, which resolves disputes and maintains order.
- The assembly of elected representatives which legislates.
- An introductory statement in the constitution.
- Every adult citizen irrespective of his/her religion, caste, language, wealth, sex can vote.
- The guidelines written in the constitution for gradual translation of ideals into laws.

4. Unscramble the following.

- rafetnrty
- udyt
- imoniryt
- eextcuvie
- otve
- alrapinemtrya
- rempalbe

5. Give reasons

- Our constitution upholds the ideal of socialism.
- Elections are held regularly in a democracy.
- India is a democratic-republic country.
- A country must have a constitution.
- It is important to promote fraternity in India.

WORK SHEET SUBJECT- SOCIAL SCIENCE Chapter-2 : Colonisation of India

CLASS- VIII

1.Fill in the blanks.

- The first English factories in India was set up at _____ and _____ in the early 17th centuries.
- _____ became a buffer state.
- The system of dual government was brought to an end by _____.
- Rani Channamma, queen of _____ fought against the British to stop its annexation.
- _____ was the first ruler to accept subsidiary alliance.
- The office of peshwa was abolished after the _____ war.
- _____ succeeded Siraj-ud-daulah as the Nawab of Bengal.

2.Answer the following.

- The battle that took place between the British and Nawab Siraj-ud-daulah.
- A state that was taken over by the British in the name of 'misgovernment'.
- The Governor –General who introduced subsidiary-alliance.
- The Governor-General who introduced Doctrine of Lapse.
- Two Indian goods in which the Company traded.
- The year in which East India Company was set up.
- He landed up on the port of Calicut in 1498.
- Three major independent native powers in the Deccan in 18th century.

3. Explain the following.

- Doctrine of Lapse.
- Mercantilism.
- Zamindari.
- Factory(in the context of East India Company).

4. Answer the following.

- What were the terms of subsidiary alliance?
- Write in short about Battle of Plassey?
- What were the results of Battle of Buxar?

5. Arrange the following events in chronological order.

- Mysore wars.
- Battle of Buxar.
- Mir Qasim became the Nawab of Bengal.
- Battle of Plassey.
- Doctrine of Lapse.

WORK SHEET
SUBJECT- MATHS
Chapter-8 : Comparing Quantities

CLASS- VIII

1. Fill in the blanks:

- (i) 3 : 8 as a per cent is
- (ii) If a man loses ₹ 240 on selling an article for ₹ 1260, the loss per cent will be
- (iii) If S. P. = ₹ 900 and M. P. = ₹ 1200, then discount = %.
- (iv) The compound interest on ₹ 500 at 5% per annum for 1 year = ₹
- (v) If the interest is paid half yearly, then in the formula $A = P \left(1 + \frac{r}{100}\right)^n$, we take for n .

2. Answer *True* (T) or *False* (F) :

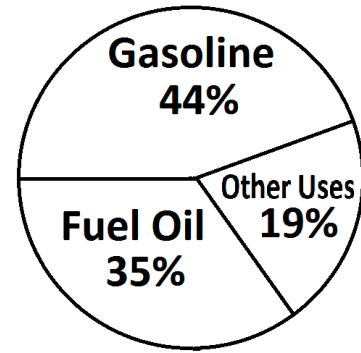
- (i) $a\%$ of b is equal to $b\%$ of a .
- (ii) If I am 20% taller than you, you are 20% shorter than me.
- (iii) If the profit is 20%, S. P. must be multiplied by $\frac{5}{6}$ to get C. P.
- (iv) When the interest is calculated yearly, the simple interest and compound interest are same for the first year.
- (v) Simple interest is calculated on the same principal for the entire loan period.

3. Choose the correct option (Multiple Choice Questions) :

- (i) If 9% of x is 27, the value of x will be
 - (a) 24
 - (b) 30
 - (c) 300
 - (d) 330.
- (ii) If the selling price of an article is twice the cost price, the profit per cent is
 - (a) 50%
 - (b) 100%
 - (c) 200%
 - (d) cannot be calculated
- (iii) The simple interest on a sum of ₹ 2700, at a rate of $3\frac{1}{3}\%$ for 4 years is
 - (a) ₹ 270
 - (b) ₹ 300
 - (c) ₹ 350
 - (d) ₹ 360.

- (iv) If a sum of money borrowed on simple interest for 10 years doubles itself, then the rate percent is
- (a) 2% (b) 5% (c) 10% (d) 12%.
- (v) Which of the following is more profitable for a one-year deposit?
- (a) a simple interest of 10%
- (b) a compound interest of 10% compounded annually
- (c) a compound interest of 10% compounded half-yearly
- (d) a simple interest of 11%.
4. A garden has 2000 trees. 12% of these are mango trees, 18% lemon and the rest are orange trees. Find the number of orange trees.
5. A certain school has 300 students, 142 of whom are boys. It has 30 teachers, 12 of whom are men. What percent of the total number of students and teachers in the school is female?
6. Ankita was given an increment of 10% on his salary. Her new salary is ₹ 3575. What was her salary before increment?
7. The population of a town increases by 10% annually. If the present population is 60000, what will be its population after 2 years?
8. Sunil loaned ₹ 8192 to Raveena to enable her to purchase a T. V. set. If Sunil charged interest at the rate of 12.5% per annum, compounded half-yearly, calculate the amount that Raveena will have to pay to Sunil after $1\frac{1}{2}$ years.
9. Ankit buys 50 chairs for ₹ 50, 000 but 20 of them are damaged. He decides to sell each damaged one at three fourths the price of the normal one. What should this price be in order that he may make a profit of 35% on the whole transaction?
10. A dealer of scientific instruments allows 20% discount on the marked price of the instruments and still makes a profit of 25%. If his gain over the sale of an instrument is ₹ 150, find the marked price of the instrument.
11. Pratyusha purchases a motorcycle, having marked price ₹ 46000 at a discount of 5%. If VAT is charged at the rate of 10%, find the amount Pratyusha has to pay to purchase the motorcycle.
12. A wholesale company marks goods without including sales tax. A particular item is marked as ₹ 760. If a customer is required to pay a sales tax of 15% on the item,
- (i) How much sales tax does she have to pay?
- (ii) How much will the item cost her when sales tax is included?

13. Petroleum is a very dark liquid when it is pumped out of the ground. Several useful products are made from this in a refinery. Two major products of petroleum are shown here. A particular refinery produces 8.4 lakh gallons of petroleum products per day. A gallon is nearly $4\frac{1}{2}$ litres.



- (i) How many of these gallons are used to make gasoline? How much is this in litres?
- (ii) Oil is measured by the barrel, each containing 42 gallons. How many barrels are used to make fuel oil?
14. A man bought two T. V. sets for ₹ 42500. He sold one at a loss of 10% and other at a profit of 10%. If the selling price of each T. V. set is same, determine the C. P. of each set.
15. Afridi purchased an old scooter for ₹ 16, 000. If the cost of scooter after 2 years depreciates to ₹ 14440, find the rate of depreciation.
16. Find the rate of interest for a sum that becomes $\frac{729}{625}$ times of itself in 2 years, when compounded annually.
17. The population of a place in the year 2000 was 48, 000. This showed a rate of increase of 5% per year. What would have been the population in the year 1998 and what will it be in the year 2003?
18. The boys and girls in a college are in the ratio 3 : 2. If 20% of the boys and 25% of the girls are adults, then what is the percentage of students who are not adults?
19. The simple interest on a certain sum of money for 3 years at 8% per annum is half of the compound interest on ₹ 4000 for 2 years at 10% per annum. What sum is placed on simple interest?
20. Suzy borrowed from Gurkeet certain sum for two years at simple interest. Suzy lent this sum to Hamida at the same rate for two years compound interest. At the end of two years, she received ₹ 110 as compound interest but paid ₹ 100 as simple interest. Find the sum and the rate of interest.

WORK SHEET
SUBJECT- MATHS
Chapter-7 : Cube & Cube Roots

CLASS- VIII

Q.1) Which of the following are the perfect cubes?

- a) 729 b) 10000 c) 1729 d) 2817 e) 6859

Q.2) Which of the following are the cubes of odd number

- a) 1331 b) 4096 c) 5832 d) 5000 e) 3375

Q.3) Is 343 or 243 a perfect cube?

Q. 4) By prime factorization find the cube roots of:

- a) 3375 b) 74088 c) 10000 d) 11331

Q. 5) Find the cube root of 17576 through estimation.

Q. 6) Is 392 a perfect cube?

Q.7) Is 68600 a perfect cube? If not, find the smallest no. by which 68600 must be multiplied to get a perfect cube.

Q. 8) Is 53240 a perfect cube? If not, then by which smallest no. should 53240 be divided so that the quotient is a perfect cube?

Q. 9) Without finding the prime factors, estimate the cube roots of the following cubes.

- a) 857375 b) 12167 c) 24389

Q.10) Find the cube root of 13824.

**WORK SHEET
SUBJECT- MATHS**

Chapter-6 : Square & Square Roots

CLASS- VIII

Q.1 Do as directed:-

- 1) Identify the numbers which are not perfect squares:-
(i) 3107 (ii) 6682 (iii) 2260 (iv) 924
- 2) Identify the numbers whose squares would end with 9:-
(a) 123 (ii) 77 (iii) 82 (iv) 109
- 3) Identify the numbers whose squares would end with 6:-
(i) 19 (ii) 24 (iii) 36 (iv) 34
- 4) Pick out the numbers which are the squares of odd natural numbers:-
(i) 440 (ii) 2601 (iii) 6084 (iv) 5329
- 5) Without adding , find the value of the following:-
(i) $1+3+5+7+9+11$
(ii) $1+3+5+7+9+11+13+15+17$
- 6) How many non-square numbers lie between 1000^2 and 1001^2 ?
- 7) Identify the square root of 4.0401:-
(i) 4.01 (ii) 2.01 (iii) 2.1 (iv) 4.2
- 8) Identify the squareroot of 0.0121:-
(i) 1.1 (ii) 2.01 (iii) 0.11 (iv) 0.023
- 9) Identify the square of 999:-
(i) 998001 (ii) 869999 (iii) 89511
- 10) The value of 53^2-52^2 is
(i) 100 (ii) 1^2 (iii) 105 (iv) 51^2

Q.2 Find the square roots of the following by the prime factorisation method:-

- (i) 529 (ii) 8100

Q.3 By which smallest number should we multiply the following numbers to make them perfect squares? Find the square root of the perfect square.

(i) 7203 (ii) 1280

Q.4 By which smallest number should we divide the following numbers to make them perfect square.

(i) 7938 (ii) 9075

Q.5 Find the square root of 0.0256.

Q.6 Find the square root of the following numbers by the long division method:-

(i) 168100 (ii) 233289

Q.7 Find the least number which should be subtracted from the following numbers to get a perfect square . Also find the square root of the perfect square:-

(i) 42448 (ii) 99230

Q.8 Find the least number which should be added to the following numbers to make them perfect squares. Also find the square root of the perfect square.

(i) 33304 (ii) 44841

Q.9 Find the smallest square number which can be completely divided by 6,10&12.

Q.10 Find the approximate value of $\sqrt{90}$.

WORK SHEET

SUBJECT- SOCIAL SCIENCE (Social & Political Life)

**CHAPTER- 3: Our Fundamental Rights And Duties,
CHAPTER 5-Parliamentary Government :The Union Executive**

CLASS- VIII

Q1 Rearrange the Hierarchy in the Union Executive

1-Council of Ministers

Deputy Minister

Ministers of State

Cabinet Ministers

2-Vice President

3-Prime Minister (real head)

4-President(formal head)

Q2 Distinguish between the terms and election of The President and The Prime Minister of India.

Q3 List Fundamental rights to Freedom enjoyed by the citizen of India

Q4 Define Writs

Q5 Fill in the blanks

1-It is compulsory to give free primary education to children aged between----- and ----- years

2-Some of our Fundamental rights can be restricted during-----

3-Orders to restore a citizens Fundamental Rights are issued by-----

WORK SHEET
SUBJECT- SOCIAL SCIENCE (History)

Chapter- 4: Tribal Resistance & Chapter-5: The Revolt Of 1857

CLASS- VIII

Q1- Fill in the blanks-

- 1-The Baigas called their Plots-----
- 2-Birsa Munda was born in ----- district
- 3-Van Gujjars belong to -----part of India.
- 4-In ----- ,the British annexed Awad on grounds of Mismanagement.
- 6-The Khasi rebellion took place in -----

Q2 Match the following

- | | |
|--------------------------|----------|
| 1.Rani Lakshmibai | Faizabad |
| 2.Nana Saheb | Lucknow |
| 3.Begum Hazarat Mahal | Jhansi |
| 4.Tantia Tope | Kanpur |
| 5.Azimullah Khan | Gwalior |
| 6.Maulvi Ahmadullah Shah | |

Q3-Answer the following

- 1-Write Economic causes of The Revolt of 1857?
- 2-Define Jhum Cultivation

WORK SHEET
SUBJECT- Science

Chapter -10: Electricity & Lightning

CLASS- VIII

I Fill in the blanks:-

1. A property of matter, called ----- gives rise to electricity.
2. Particles that carry negative charge is called _____ .

II Choose the correct options:-

- 1 A nonmetal which is not an insulator
a) Carbon b) Sulphur c) Oxygen d) None
2. Which property is used while testing for charge:-
 - a) Attraction
 - b) Repulsion
 - c) Attraction as well as repulsion
 - d) Neither attraction nor repulsion

III Name the following :-

- 1 The flow of charge through air or gas.
- 2 Charging objects by bringing them near a charged body .
- 3 Rubbing body against each other to acquire an equal and opposite charge.

IV Define the following:-

- 1 Earthing.
2. Conduction
3. Electrostatic Force

V Draw neat and labelled diagram.

1. Lightning strike and conductor.
2. Charging by induction and charging by conduction.

VI Give Reasons

1. A piece of Styrofoam gets charged when it is rubbed with a piece of paper.
2. The leaves of gold leaf electroscope diverge when a charged body is brought in contact with its disc.

VII Answer in 20 words:-

- 1 What happens when someone rubs glass rod with a piece of silk and is brought near a negatively charged paper cylinder.
- 2 What would you expect when a plastic ruler is rubbed with a woollen cloth.

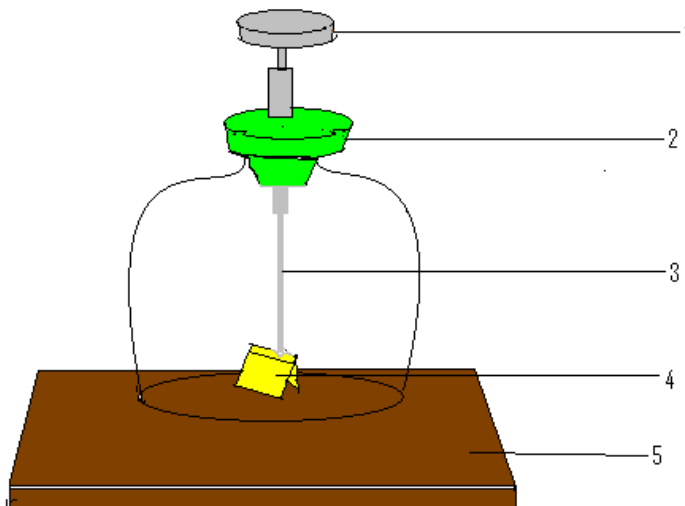
VIII Answer in 40 words:-

- 1 When a charged rod is moved towards an uncharged paper cylinder suspended by a string, the cylinder gets attracted to the rod initially and then moves away with a jerk .Explain why?
- 2 What are Lightning Conductors?

IX Answer in 100 words:-

- 1 How does lightning occur?
- 2 How would you use an electroscope to determine the nature of the charge (positive or negative) on a body?

X Label the following parts and answer the following questions:-



- 1 What is the use of Gold Leaf Electroscope?
- 2 Can any other metal be used in place of gold? If yes, Name any two metals.

WORK SHEET
SUBJECT- Science
(Topic-Force and Pressure)

CLASS- VIII

1. Name the following: -

- a. Force of attraction between any two bodies on earth.
- b. Device used to measure weight of a body.
- c. Bodies with the smooth outline.
- d. Instrument used to measure pressure difference.

2. Differentiate the following: -

- a. Static friction and Kinetic friction.
- b. Magnetic force and Electrostatic force.

3. Draw diagram of the following: -

- a. Spring Balance.
- b. Manometer.

4. Give reasons for the following: -

- a. Why the cutting edge of knife is made sharper?
- b. Why is moon's force of gravity less than that of Earth?
- c. Why are Skis long and flat?

5. Very Short answer: -

- a. Define Pressure.
- b. SI unit of Pressure.
- c. SI unit of Force.

WORK SHEET
SUBJECT- Science
(Topic-Food Production)

CLASS- VIII

1. Name the following: -

- a. Science of cultivating food.
- b. Protein present in egg.
- c. Crop sown during monsoon.
- d. The process of converting atmospheric nitrogen into nitrogenous compound.
- e. One plant which needs to be transplanted.

2. Differentiate between the following : -

- a. Manure and fertilizer.
- b. Pesticides and Rodenticides.
- c. Permanent canal and inundation canal.

3. Define the following: -

- a. Wheat.
- b. Crop rotation.
- c. Symbiosis.
- d. Broadcasting.
- e. Cash Crop.

4. Draw the diagram of the following: -

- a. Nitrogen cycle.
- b. Root nodule.

5. Write short notes on the following: -

- a. Green Manure.
- b. Buffer Stock.
- c. Harvesting.

**WORK SHEET
FIRST TERM
SUBJECT- Science
Chapter-3: Microorganisms**

CLASS- VIII

Q.1 Give one example of the following :

- i) A unicellular algae
- ii) A filamentous algae
- iii) Algae forming clusters/colonies
- iv) A brown algae
- v) The bacteria found in curd
- vi) One rod-shaped bacteria
- vii) One spherical bacteria
- viii) A protozoan which can photosynthesize

Q. 2 Match the columns:

- | | |
|------------------------------|----------------------|
| i) Entamoeba histolytica | a) Botulism |
| ii) Giardiasis | b) Giardia |
| iii) Trypanosoma | c) AIDS |
| iv) HIV | d) Curd |
| v) Yeast & lactobacillus | e) Amoebiasis |
| vi) Penicillium notatum | f) Sleeping sickness |
| vii) Streptococcus pneumonia | g) Antibiotic |
| viii) Clostridium botulinum | h) Pneumonia |

Q.3 Write briefly about the following:

- i) Diatoms ii) Mildew iii) Cyanobacteria iv) Zooplanktons v) Algal bloom
- vi) Spores vii) Anaerobic bacteria viii) Binary fission ix) pasteurization x) Microbiology

Q. 4 Answer the following questions:

- a) List some methods of food preservation
- b) Write two uses and two harms caused by the following :
 - i) Algae ii) Bacteria iii) Protozoa iv) Fungi
- c) Draw well labelled diagram of the following :
 - i) Euglena ii) A bacterial cell iii) Paramecium
- d) How do bacteria reproduce?
- e) What is the major difference between bacterial cell and the cells of other organisms?
- f) Why is "Virus" thought of as something in between the living and non-living ? How do they multiply within a host cell?

WORK SHEET FIRST TERM SUBJECT- Science

(Topic-Metals & non metals)

CLASS- VIII

Q 1 Fill in the blanks

1. Except-----nonmetals do not react with air at ordinary temperature.
2. A more active nonmetal displace a less active nonmetals from its _____ in solution
3. Plants use nitrogen to manufacture_____.
4. Liquid _____ is used to burn rocket fuel.
5. _____ used in the manufacture of pesticides like Gammexane.
6. _____ with acetylene oxygen is used in-_____ torches to cut & weld metal
7. Alloys of silver & tin with mercury is known as_____.

Q2 complete the following equations.

1. C (red hot)+ H_2O (steam)→ _____ + _____
2. $2C+O_2 \rightarrow$ (Ignition)→ _____
3. $Cl_2+2 H_2O \rightarrow$ (Sunlight)→ _____ + _____
4. Mg (hot)+ H_2O (steam) → _____ + _____
5. $Cl_2+NaI \rightarrow$ _____ + _____

Q3 Define the following terms

1. Metallic clink
2. Malleable
3. Ductile
4. Activity series
5. Corrosion
6. Halogen family
7. Noble gases

Q 4 Give reasons for the following

1. Silver & gold are called noble metals.
2. To prevent rusting iron is often galvanized.
3. Nylon or jute ropes can't be used as electrical transmission.
4. We can't use utensils made of cardboard.
5. We can't draw wires from coal or wood.
6. Why white phosphorus is stored under water.
7. Nitrogen is used for filling food packages.

Q 5 Answer the following in not more than 20 words.

1. Name any ten metals.
2. Name five non metals which are gaseous at ordinary temperatures.
3. Mention three uses of carbon.
4. Mention three uses of sulphur.
5. What is tincture of iodine?

Q.6. Answer the following in not more than 30 words.

1. Mention five physical characteristics of metals.
2. Mention five physical characteristics of nonmetals.
3. Mention three uses of metals giving reasons
4. Describe three uses of chlorine.
5. Define an alloy, explain with three examples.

Q.7. Answer the following in not more than 100 words.

1. How would you use the active series while studying the displacement of hydrogen from acid by metals?
2. Describe an activity to show that the 'lead' of a pencil conducts electricity but a piece of sulphur does not.
3. Write three chemical properties of metals with chemical equations.

WORK SHEET

FIRST TERM

SUBJECT- Social Science

GEOGRAPHY-Chapter-2 Land, soil and water resource. Chapter 3 Natural Vegetation and Wildlife History-Chapter 4 The company's Civil Administration and Revenue Policy.

CLASS- VIII

Q. 1 : Name the following:-

- a) A book of rules by which a country is governed.
- b) The part of land which is used for cultivation.
- c) Falling of rocks down the slope due to gravity.
- d) A proposal to pass a new law or to change an existing one.

Q. 2 : Define Technology, Sustainable development, Doctrine of lapse, Permanent settlement, Coalition government and Sovereign.

Q. 3 : Fill up the blanks:-

- a) The complete vertical sequence of different layers of soil is called _____.
- b) _____ means giving a new form to an unused thing.
- c) Plant & animals living together under similar environmental condition make up a _____.
- d) Place where historical documents are kept is called an _____.

Q. 4 : Choose the correct answer:-

- a) Afforestation and conservation of forest for the benefit of the environment and for meeting the human needs.
 - 1. Social forestry 2. Terracing 3. Plantation
- b) The subjugation of an area by the British for their own interest.
 - 1. Colonization 2. Urbanization 3. Industrialization
- c) Burning of vegetation to clear plots of land in the forest.
 - 1. Forest fire 2. Jhum Cultivation 3. Contour ploughing
- d) Annual financial statement placed by the government before the parliament.
 - 1. Bill 2. Budget 3. Document

Q. 5 : Differentiate between:-

- a. Permanent & Ryotwari settlement
- b. Question Hour and Zero Hour
- c. Terracing and contour ploughing

WORK SHEET FIRST TERM SUBJECT- Mathematics CLASS- VIII

Rational Number

1. Is zero a rational number? If yes, give two examples.
2. What are the identity elements for the addition and multiplication of rational numbers?
3. Write the reciprocal of 0.
4. Write four rational numbers which are greater than - 31 and less than 4.
5. Find ten rational numbers between 2 and 3.
6. Between any two rational numbers, there lie :
 - a) two rational number
 - b) No rational number
 - c) infinite rational numbers
 - d) infinite fractions
7. Addition is associative for
 - a) Natural numbers
 - b) Whole Numbers
 - c) Rational Numbers
 - d) All of these
8. Rational numbers are not closed under :
 - a) Subtraction
 - b) Division
 - c) Addition
 - d) Multiplication

Squares and Square Roots

1. Find the square root of the following by means of factors i) 529 2. ii) 298116
2. Find the smallest number by which 252 must be multiplied to get a perfect square. Also, find the square root of the perfect square so obtained.
3. Find the smallest number by which 2925 must be divided to get a perfect square. Also, find the square root of the perfect square so obtained.
4. Find the least square number, exactly divisible by each one of the numbers 6, 9, 15 and 20.
5. Find the least square number exactly divisible by each one of the numbers 8, 12, 15, 20.
6. Find the square root of: (a) 9126441 (b) 63409369
7. Find the least number that must be subtracted from 7581 to obtain a perfect square. Find the perfect square and its square root.
8. Find the least number that must be added to 506900 to make it a perfect square. Find its perfect square and its square root.
9. Find the least number of 4 digits that is a perfect square.
10. Find the square root of (a) 14. 10.0469 (b) 15. 0.00038809

Construction of quadrilaterals

1. Construct a quadrilateral ABCD in which sides AB = 4 cm, BC = 4.5 cm, AD = 5.5 cm and diagonal AC= 7.5 cm. measure diagonal BD.
2. Construct a quadrilateral ABCD in which sides AB = 4.2 cm, BC= 5 cm, CD=5.3 cm, angle B=120° and angle C = 75°.
3. Construct a quadrilateral ABCD in which three sides are 4 cm each and both the diagonals are 6 cm each.
4. Construct a rhombus ABCD in which AB = 4 cm and diagonal AC = 6.5 cm.
5. Construct a quadrilateral ABCD in which all sides are 5 cm and angle A= angle B = 90°.
6. Construct a square whose diagonal is 6.4 cm.
7. Construct a square each of whose sides measure 4.6 cm.
8. Construct a quadrilateral PQRS in which sides PQ= 3 cm, QR= 4 cm, RS =3.5 cm , SP = 4 cm and diagonal PR = 5 cm
9. Construct a quadrilateral ABCD in which AB = 4.3 cm, BC =5 cm, angle A=60° , angle B = 100° and angle C= 125°
10. Construct a rectangle ABCD in which side BC = 5 cm and diagonal BD= 6.2 cm
11. Construct a quadrilateral ABCD in which sides AB = 5 cm, BC = 4 cm, CD = 5 cm and diagonals BD= AC = 6.5 cm.

Understanding Quadrilaterals

1. One angle of a parallelogram is of measure 80° . Find the measures of the remaining angles of the parallelogram.
2. Quadrilateral PQRS is a trapezium in which $PQ \parallel RS$. If $\angle P = \angle Q = 50^\circ$, what are the measures of the other two angles.
3. One side of a parallelogram is $\frac{3}{4}$ th times its adjacent side. If the perimeter of the parallelogram is 70 cm, find the sides of the parallelogram.
4. A pair of the adjacent sides of a rectangle are in the ratio 3:4. If its diagonal is 20 cm, find the length of the sides and hence the perimeter of the rectangle.
5. ABCD is a parallelogram. AP bisects angle A and CQ bisects angle C. P lies on CD and Q lies on AB. Show that
 - 1) AP \parallel CQ.
 - 2) AQCP is a parallelogram.
6. An exterior angle of a parallelogram is 110° . Find the angles of a parallelogram.
7. The ratio of the two sides of a parallelogram is 3 : 5 and its perimeter is 48 cm. Find the sides of the parallelogram.
8. The diagonals of a rhombus are in the ratio 5 : 12. If its perimeter is 104 cm, find the length of the sides and its diagonals.
9. ABCD is a parallelogram where diagonal intersect each other at right angles, if the length of the diagonals is 6 cm and 8 cm find the length of all the sides of the parallelogram.
10. The diagonal of a rectangle ABCD intersect at O. If $\angle BOC = 70^\circ$. Find $\angle ODA$.
11. Two adjacent angles of a parallelogram are in the ratio 1 : 5 find all the angles of the parallelogram.
12. ABCD is a quadrilateral with $\angle A = 80^\circ$, $\angle B = 40^\circ$, $\angle C = 140^\circ$, $\angle D = 100^\circ$.
 - a) Is ABCD a trapezium?
 - b) Is ABCD a parallelogram?

Cubes and Cube Roots

1. Which of the following are perfect cubes.
 - a) 3840
 - b) 12167
 - c) 1728
2. Find the smallest number by which the following numbers must be multiplied so that the products are perfect cubes.
 - a) 5324
 - b) 1323
 - c) 3125
3. Find the cube root using prime factorization.
 - a) 4096
 - b) 5832
 - c) 15625
4. Find the smallest number by which the given numbers must be multiplied to get the quotient as a perfect cube.
 - a) 1536
 - b) 9826
 - c) 8788
5. Find the cube root of each using estimation .
 - a) 314432
 - b) 857375
 - c) 636056
6. Find the least number to be added to the following to make them perfect cubes. Also find the cube roots of the perfect cubes so obtained.
 - a) 340
 - b) 510
 - c) 728

Linear Equations In One and Two Variables

1. The perimeter of a rectangular swimming pool is 154 metres. Its length is 2m more than twice its breadth. What are the length and breadth of the pool.
2. Sum of two numbers is 95. If one exceeds the other by 15 find the numbers.
3. Two numbers are in the ration 5:3. If they differ by 18, find these numbers
4. Three consecutive integers add up to 51. What are these integers?
5. The sum of three consecutive multiples of 8 is 888. Find the multiple.
6. Three consecutive integers are as such when they are taken in increasing order and multiplied by 2, 3, and 4 respectively, they add up to 74. Find these numbers.
7. The number of boys and girls in a class is in 7:5 ratio. The number of boys is 8 more than that of girls. Fin their numbers.
8. The ages of Rahul and Haroon are in the ratio of 5:7. Four years from now sum of their ages will be 56 years. Find their present age.
9. In a linear equation, the highest power of the variables :-
 - a) One
 - b) two
 - c) Three
 - d) Zero
10. Baichung's father is 26 years younger than Baichung's grandfather and 29 years older than Baichung. The sum of their ages is 135. Find their ages.

11. Fifteen years from now Ravi's age will be 4 times his current age. What is his current age.
12. Lakshmi is a cashier in a bank. She has notes of denominations of Rs. 100, 50 and 10 respectively. The ratio of number of these notes is 2:3:5 respectively. The total cash with Lakshmi is 4,00,000. How many notes of each denomination does she have?
13. I have total Rs 300 in coins of denominations of Rs.1, Rs.2, and Rs. 5. The number of Rs. 2 coins is 3 times the number of Rs. 5 coins. The total number of coins is 160. How many coins of each denomination are with me.
14. The organizers in an essay competition decide that winner will get a prize of Rs. 100 and a participation who doesn't win gets a prize of Rs. 25. The total prize money distributed is Rs. 3,000. Find the number of winners if the total number of participants is 63.
15. If in a rational number denominator is greater than numerator by 8. If you increase the numerator by 17 and decrease the denominator by 1, you get $\frac{3}{2}$ as result. Find the number.
16. Amina thinks of a number and subtracts $\frac{5}{2}$ from it. She multiplies the result by 8. The final result is 3 times her original number. Find the number
17. A positive number is 5 times another number. If 21 is added to both the numbers then one of the new numbers becomes twice of another new numbers. Find the original numbers.
18. One of the digits of a two digit number is three times the other digit. If you interchange the digits and add the resulting number to original number you get 88 as final result. Find the numbers.
19. There is a narrow rectangular plot. The length and breadth of the plot are in the ratio of 11:4. At the rate of Rs. 100 per metre it will cost village panchayat Rs.75000 to fence the plot. What are the dimensions of the plot.
20. Hasan buys two kinds of cloth materials for school uniform. Shirt material cost him Rs. 50 per metre and trousers material cost him Rs. 90 per metre. For every 2 metres of the trousers material he buys 3 metres of shirt material. He sells them at 12% and 10% profit respectively. His total sale is Rs. 36,660. How much trousers material did he buy? (200m)
21. Half of a herd of deer are grazing in the field and three fourths of the remaining are playing nearby. The rest 9 are drinking water from the pond. Find the total number of deer in the herd.
22. A grandfather is 10 times older than his granddaughter. He is also 54 years older than her. Find their age.
23. A man's age is three times his son's age. Ten years ago his age was five times his son's age. Find their current age.
24. An equation of the form $ax + b = c$, where a, b and c are numbers, $a \neq 0$ and x is the variable; represents a
 - a) linear equation
 - b) linear equation in one variable
 - c) linear equation in two variables
 - d) None of these

Comparing Quantities

1. Find x if :

a. 13.25% of x is 159

b. $\frac{2}{3}\%$ of x is 2.4

2. Find the amount and the compound interest on Rs 4000 at 10% p.a. for $2\frac{1}{2}$ years.

3. A man invests Rs 5000 for three years at a certain rate of interest, compounded annually. At the end of one year it amounts to Rs 5600. Calculate (i) the rate of interest per annum, (ii) the interest accrued in the second year, (iii) the amount at the end of the third year.
4. A sum of Rs 9600 is invested for 3 years at 10% per annum at compound interest. (i) What is the sum due at the end of the first year? (ii) What is the sum due at the end of the second year? (iii) Find the compound interest earned in two years. (iv) Find the difference between the answers (ii) and (i) and find the interest on this sum for one year. (v) Hence write down the compound interest for the third year.
5. Find the difference between the S.I. and C.I. on Rs 2500 for 2 years at 4% p.a., compound interest reckoned semi-annually.
6. Calculate the compound interest for the second year on Rs 8000 invested for 3 years at 10% p.a.
7. Find the sum which amounts to Rs 9261 at 10% p.a. compound interest for 18 months, interest payable half-yearly.
8. The simple interest on a certain sum for 3 years is Rs 150 and the compound interest on the same sum at the same rate for 2 years is Rs 110. Find the rate of interest and the principal.
9. The value of a machine depreciates every year at the rate of 10% of its value. The machine was purchased for Rs 40000 when new and it was sold for Rs 29160. Find the number of years that the machine was used.
10. Sonika sells two jewellery boxes for Rs. 1400 each. On one she earns a profit of 10% and on other suffers a loss of 10%. Find her overall profit or loss percent.

SAMPLE QUESTION PAPER

SA-1

विषय— संस्कृतम्

कक्षा— अष्टमी

अवधि : होरात्रयम्

पूर्णांशः — शतम्

निर्देशः —

1. सर्वे प्रश्नाः अनिवार्याः ।
2. सर्वेषां प्रश्नानाम् उत्तरं खण्डक्रमानुसारमेव लेखनीयम् ।
3. सर्वेषां प्रश्नानाम् उत्तराणि संस्कृतेन एव लेखितव्यानि ।

खण्डः 'क' (अपठितावबोधनम्—10अंकाः)

iz-1 अधोलिखितम् गद्यांशम् पठित्वा प्रश्नानाम् उत्तराणि लिखत —

प्रियजनैः सह कृतं पर्यटनम् आनन्दम् ददाति । पर्यटनम् रोमा×चकारि भवति । पर्यटनेन ज्ञानवृद्धिः मनोर×जनं च भवतः । यत् ज्ञानं स्वयम् अनुभूयते दृश्यते च तत् स्थिरतरम् भवति । कस्मिन् देशे— प्रदेशे वा किं किं दर्शनीयम् ? अथवा तत्र कथं व्यवहारः क्रियते एतत् सर्वम् पर्यटनेन ज्ञायते । पर्यटन — उद्योगेन भारतशासनं पर्याप्तं धनं प्राप्नोति ।

I. कोष्ठकात् पदं चित्वा एकपदेन उत्तरत —

(1×4=4)

- क) कैः सह कृतम् पर्यटनम् आनन्दम् ददाति ? (सज्जनैः / प्रियजनैः)
- ख) ज्ञानवृद्धिः मनोर×जनं च कथम् भवति ? (पर्यटनेन / प्रियजनैः सह)
- ग) भारतशासनम् केन पर्याप्तम् धनम् प्राप्नोति ? (पर्यटन—उद्योगेन / पर्यटकैः)
- घ) यत् ज्ञानम् — स्वयम् अनुभूयते दृश्यते च तत् किं भवति ? (मनोर×जकम् / स्थिरतरम्)

II. पूर्णवाक्येन उत्तरत —

(2×2=4)

- क) पर्यटनेन किम् किम् ज्ञायते ?
- ख) कीदृशं पर्यटनम् आनन्दम् ददाति ?

III. निर्देशानुसारम् उत्तरत —

(1×2=2)

- क) 'पर्यटनम् रोमा×चकारि' — अत्र विशेष्यपदम् किम् ? (पर्यटनम् / रोमा×चकारि)
- ख) 'एतत् सर्वम् पर्यटनेन ज्ञायते ।' अत्र क्रियापदं किम् ?
अ) एतत् ब) ज्ञायते स) पर्यटनेन द) सर्वम्

- iz- तव नाम सौम्या अस्ति । भवती रायगढनगरस्थ ओ.पी.जिन्दल-विद्यालये पठति । (5)
2 स्वविद्यालयस्य वर्णनम् कुर्वन् स्वमित्रम् प्रति पत्रम् पूरयत ।

मंजूषा -	वयस्य, कुशलोऽस्मि, परिश्रमिणः, लेखिष्यामि, प्राप्नुमः, अध्यापकाः, सुन्दरः, नमस्कारः, इच्छामि, विद्यालये
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रायगढनगरम्

दिनांक: 01.09.2014

प्रिय (1).....

(2).....

अहम् अत्र (3)..... । छात्रावासे अधुना मम अनेकानि मित्राणि सन्ति । अहम् स्वविद्यालयस्य वर्णनं कर्तुम् (4)..... । मम विद्यालयः अतीव विशालः (5)..... । पतरापालीक्षेत्रे स्थितेऽस्मिन् विद्यालये सर्वे छात्राः (6)..... सन्ति । अस्माकं सर्वे (7)..... मनोयोगेन पाठयन्ति । तेषां योग्यता तु वस्तुतः प्रशंसनीया । वयम् (8)..... अश्वारोहणस्य, क्रिकेटस्य, पादकन्दुकस्य, टेबलटेनिस-बास्केटबाल च इति क्रीडयोः प्रशिक्षणमपि (9)..... विस्तरेण पुनः (10)..... ।

भवतः सुहृत्

सौम्या

- iz-3 अधोलिखितं सम्वादं मंजूषातः पदं चित्वा पूरयत - (5)

अर्थः, पठसि, अस्ति, कालिदास्य, नाम

आभा - हे भ्रातः ! त्वम् किम् (1)..... ?

गुलशनः - अहम् (2)..... अभिज्ञानशाकुन्तलम् पठामि ।

आभा - भ्रातः, किम् अस्ति 'अभिज्ञान' पदस्य (3)..... ?

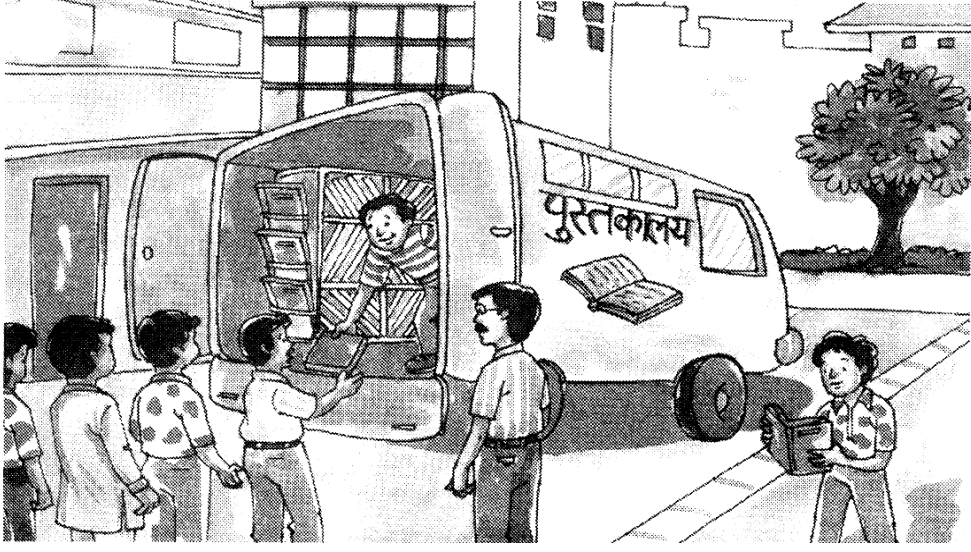
गुलशनः - 'अभिज्ञानपदस्य' अर्थ 'पहचान' इति (4)..... ।

आभा - अस्तु । कालिदासस्य कापि अन्यारचनायाः (5)..... जानासि ?

गुलशनः - मेघदूतम् ।

आभा - शोभनम् ।

वृक्षः, एषः, चलपुस्तकालयः, पंक्तिबद्धाः, जनाः, अस्ति,
गृहाणाम्, समीपे, पुस्तकानि, सन्ति, भवनानि



खण्डः 'ग' (अनुप्रयुक्तव्याकरणम्-20 अंकाः)

प्र.5 निम्नांकितानाम् रेखांकित पदानां सन्धिं संधिच्छेदं वा चित्वा लिखत —

(1×4=4)

क) विद्यालयः नगरे वर्तते ।

अ) विद्या + लयः ख) विद्या + आलयः ग) विद्य +
आलयः

ख) तस्य भाग्य + उदयः अभवत् ।

अ) भाग्योदयः ख) भग्युदयः ग) भाग्यूदयः

ग) तदैव सा अवदत् ।

अ) तद् + एव ख) तदा + एव ग) तदा + इव

घ) जनाः महोत्सवे नृत्यन्ति ।

अ) महा + उत्सवे ख) मह + उत्सवे ग) महो +त्सवे

प्र.6 अधोलिखितविकल्पेषु निर्देशानुरूपं शब्दरूपं चित्वा लिखत —

(1×4=4)

क) 'राम' शब्दस्य तृतीया — बहुवचने किं रूपं भविष्यति ?

अ) रामेण ख) रामैः ग) रामस्य

ख) 'हरि' शब्दस्य प्रथमा — बहुवचने किं रूपं भविष्यति ?

अ) हरयः ख) हरिणा ग) हरिभ्यः

ग) 'नदी' शब्दस्य सप्तमी बहुवचने किं रूपं भविष्यति ?

अ) नदीः ख) नद्या ग) नदीषु

घ) 'मति' शब्दस्य सप्तमी बहुवचने किं रूपं भविष्यति ?

अ) मतीनां ख) मत्या ग) मतीषु

प्र.7 अधोलिखित विकल्पेषु निर्देशानुरूप-धातुरूपं चित्वा लिखत –

(1×4=4)

- क) 'गम्' धातोः लट्लकारस्य उत्तमपुरुषः – बहुवचने किं रूपं भविष्यति ?
(अ) गच्छामि (ब) गच्छामः (स) गच्छथ
- ख) 'खाद्' धातोः लृट्लकारस्य प्रथमपुरुषैकवचने किं रूपं भविष्यति ?
(अ) खादिष्यसि (ब) खादिष्यति (स) अखादः
- ग) 'भू' धातोः लङ्लकारस्य प्रथमपुरुष – बहुवचने किं रूपं भविष्यति ?
(अ) अभवत् (ब) अभवन् (स) अभवाम
- घ) 'पठ्' धातोः लङ्लकारस्य प्रथमपुरुष – बहुवचने किं रूपं भविष्यति ?
(अ) अपठत् (ब) अपठन् (स) अपठाम

प्र.8 अधोलिखितवाक्येषु रेखांकितानां पदानां समासं विग्रहं वा चित्वा लिखत –

(1×4=4)

- क) वृक्षस्य समीपम् एकं मन्दिरम् अस्ति ।
अ) उपवृक्षम् ब) निष्पृम् स) यथावृम्
- ख) भवान् गर्वेण सहितम् वदतु ।
अ) सगर्वम् ब) सगरवम् स) अनुगर्वम्
- ग) सः नरः धनेन हीनः वर्तते ।
अ) धनहीनः ब) धनहीनम् स) धनीन
- घ) नवानां रात्रीणां समाहारः प्रचलति ।
अ) नवरात्रम् ब) नवरात्री स) नवीनरात्री

प्र.9 अधोलिखितानां पदानां प्रकृति-प्रत्ययौ चित्वा लिखत –

(1×4=4)

- क) मया पत्रम् लेखनीयम् ।
अ) लिख् + अनीयर् ब) लिख + नीयर् स) लिख + अनीयम्
- ख) सः ग्रामं गतवान् ।
अ) गम् + तवान् ब) गम् + क्तवतु स) गम् + क्त्वा
- ग) सिंहः बिडालम् खादितुम् इच्छति स्म ।
अ) खाद् + अनीयर् ब) खाद् + तुमुन् स) खाद् + क्वतु
- घ) दुग्धं नीत्वा गच्छ ।
अ) नी + ल्यप् ब) ना + तुमुन् स) नी + क्त्वा

खण्ड: 'घ' (पठितावबोधनम्-50 अंकाः)

iz-10 अधोलिखितम् गद्यांशम् पठित्वा प्रदत्तप्रश्नानाम् उत्तराणि लिखत –

तदा गुहायाः स्वामी दधिपुच्छः नाम शृगालः समागच्छत् । स च यावत् पश्यति तावत् सिंहपदपद्धतिः गुहायां प्रविष्टा दृश्यते, न च बहिरागता । शृगालः अचिन्तयत् – 'अहो विनष्टोऽस्मि । नूनम् अस्मिन् बिले सिंहः अस्तीति तर्कयामि । तत् किम् करवाणि ? एवं विचिन्त्य दूरस्थः रवं कर्तुमारब्धः – "भो बिल ! भो बिल ! किं न स्मरसि, यन्मया त्वया सह समयः कृतोऽस्ति यत् यदाहं बाह्यतः प्रत्यागमिष्यामि तदा त्वं माम् आकारयिष्यसि ? यदि त्वं मां न आह्वयसि तर्हि अहं द्वितीयं बिलं यास्यामि इति ।"

I. एकपदेन उत्तरत –

(1×4=4)

- क) दधिपुच्छः कस्य नाम किम् आसीत् ? (शृगालस्य / समयः)
ख) शृगालः कस्य पदपद्धतिम् अपश्यत् ? (सिंहस्य / शृगालस्य)
ग) शृगालः केन सह समयम् असरोत् ? (बकेन / बिलेन)
घ) दूरस्थः शृगालः किं कर्तुमारब्धः ? (रवम् / द्वितीयम्)

II. पूर्णवाक्येन उत्तरत –

(2×2=4)

- क) शृगालः किम् अचिन्तयत् ?
ख) गुहायाः स्वामी कः आसीत् ?

III. यथानिर्देशानुसारम् उत्तरत –

(1×2=2)

- क) 'गुहायाः' इति पदे का विभक्तिः किं च वचनम् ? (षष्ठी एकवचनम् / तृतीया बहुवचनम्)
ख) 'अहं द्वितीयं बिलं यास्यामि' । अत्र क्रियापदं किम् ?
अ) अहम् ब) यास्यामि स) बिलम् द) द्वितीयम्

iz-11 अधोलिखितानां प्रश्नानाम् उत्तराणि लिखत –

(2×5=10)

- क) पथि के विषमाः प्रखराः ?
ख) प्रेमली कस्य पत्नी आसीत् ?
ग) बालः कुत्र विलपिष्यति ?
घ) बदरी-गुल्मानां पृष्ठे का निलीना आसीत् ?
ङ) कूपः कीदृशः अस्ति ?

iz-12 अधोलिखितवाक्येषु रेखांकितपदानि आधृत्य प्रश्ननिर्माणं कुरुत –

(1×5=5)

- क) मधुमक्षिका माधुर्यमेव जनयति ।
ख) प्रेमली चतुरा आसीत् ।
ग) गुणाः गुणज्ञेषु गुणाः भवन्ति ।
घ) सः घटे जलं सम्पूर्य आगच्छत् ।
ङ) गुहायाः स्वामी दधिपुच्छः आसीत्

iz- 13 अधोलिखितानां पदानां विभक्तिं वचनं च लिखत –

(1×5=5)

पदम्	विभक्तिः	वचनम्
क) वसन्तसेना	३३३	३३३३
ख) एकस्मिन्	३३३	३३३३
ग) दौर्भाग्यात्	३३३	३३३३
घ) मैत्रीम्	३३३	३३३३
ङ) स्नानगृहे	३३३	३३३३

iz- 14 अधोलिखितानां समानार्थकपदानां मंजूषातः चित्वा पदम् लिखत –

(1×5=5)

मंजूषा – पाषाणम्, त्यक्त्वा, शुचिः, लब्ध्वा, आत्मानम्,

क) परित्यज्य	३३३
ख) अश्मम्	३३३
ग) प्राप्य	३३३
घ) पवित्रम्	३३३
ङ) स्वकीयम्	३३३

iz- 15 अधोलिखितानां पदानां विलोमपदम् लिखत –

(1×5=5)

क) अनन्या	३३३
ख) पुरतः	३३३
ग) अनुरक्तिः	३३३
घ) भीतिः	३३३
ङ) कृतघ्नः	३३३

iz- 16 मंजूषातः क्रियापदं चित्वा वाक्यानि पूरयत –

(1×5=5)

मंजूषा– देहि, चल, निधेहि, अवातारयत्, आसीत्,

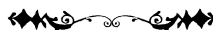
क) त्वं विद्यालयं	।
ख) त्वं पुरतः चरणम्	।
ग) मह्यं जलं	।
घ) सः हण्डीम्	।
ङ) ३३३३ कश्चित् च०चलो नाम व्याधः ।	

iz- 17 मंजूषातः उचितम् अव्ययपदं चित्वा रिक्तस्थानानि पूरयत–

(1×5=5)

मंजूषा– एव, सदा, तदा, च, विना,

क) यदा दशवादनं भवति	छात्राः विद्यालयं गच्छन्ति ।
ख) विद्यां ३३३३जीवनं वृथा ।	
ग) वृक्षाः फलानि छायां	यच्छन्ति ।
घ) सत्यम्	जयते ।
ङ) ३३३३ भगवन्तं भज ।	



**SAMPLE PAPER
SUBJECT- SOCIAL SCIENCE**

CLASS- VIII

SECTION-A

1. Locate the following on an outline map of India (6)
 - a. A French port
 - b. An English port
 - c. A national park in MP

2. Name the following personalities (5)
 - a. He led the revolt of 1857 in Kanpur
 - b. He was the last governor in general under the company
 - c. This governor general introduced code of law
 - d. He is the writer of the play Neel Darpan
 - e. He succeeded Siraj Ud daulah as nawab of Bengal

3. Answer in one word (5)
 - a. It is a natural scavenger which is now endangered in India
 - b. It is celebrated to encourage planting of trees
 - c. This plant filters out toxic substances from the industrial waste
 - d. This rock produces black soil
 - e. This resource is non renewable but can be recycled

4. Choose the correct option (5)
 - a. The president's resignation letter is addressed to the
 - i. prime minister
 - ii. vice president
 - iii. Loksabha speaker
 - iv. Cabinet secretary

 - b. The real head of union executive is
 - i. president
 - ii. Prime minister
 - iii. Speaker
 - iv. vice president

 - c. A country which has no official religion is called
 - i. republic
 - ii. socialist
 - iii. Secular
 - iv. Sovereign

 - d. Abolition of untouchability comes under
 - i. Right to freedom
 - ii. Right to education
 - iii. Right to equality
 - iv. Right against exploitation.

 - e. Debate over issues of public interest held during
 - i. question hour
 - ii. Voting time
 - iii. Zero hour
 - iv. None of these

5. Match the dates with the events

(4)

A	B
High courts were established	1764
Battle of Buxar	1865
East India company was established	1600
Queen's proclamation was read out	1858
	1930

6. Answer in one sentence

(1*7=7)

- i. Name any two Indian tribes that revolted against the Britishers.
- ii. Name any two laws that increased parliament's control over the company.
- iii. What is a reserve?
- iv. What is a land slide?
- v. What is the preamble?
- vi. Who can vote in Lok sabha election?
- vii. What is the main function of Union Executive?

SECTION-B

1. Answer in short (any three)

3*3=9

- i. Write any three functions of prime minister.
- ii. List any three freedoms of Indian citizens under the Right to freedom.
- iii. India is both a democracy and a republic. Justify this statement.

2. Differentiate between Lok Sabha and Rajya Sabha in three points.

- I. Answer briefly about any five.
- i. Mention the various means of livelihood of Baigas.
- ii. Mention three distinctive features of modern period.
- iii. Write any three consequences of Battle of Buxar.
- iv. Write about the ryoti system of indigo plantation.
- v. Why did the Revolt of 1857 fail? Explain any three reasons.
- vi. What is jhum cultivation?

5*3=15

3. Answer in short (any three)

3*3=9

- i. What causes forest fire?
- ii. How can we deal with water pollution?
- iii. With suitable example differentiate between actual and potential resource.
- iv. Differentiate between renewable and non renewable resource with suitable examples.

SECTION-C

Discuss in detail (any seven)

7*5=35

1. Write briefly about regur soil. Describe any three methods of soil conservation.
2. What is biome? Describe any four methods of conserving vegetation and wildlife.
3. Describe British territorial expansion under Lord Dalhousie.
4. What were the effects of land revenue system under British?
5. What were the economic causes of revolt 1857?
6. What is a bill? Describe how a bill becomes a law?
7. How is president of India elected? Mention powers of the president.
8. What is a constitution ? Why a country should have a constitution?
