AJITA PRIVATE TUITION

AJITA PRIVATE TUITION (AJITA BANERJEE)

ONLINE CBSE-ICSE-SSC SPECIALIST

Class 08 - Mathematics

MATHEMATICS REVISION WORKSHEET TERM 1

Maximum Marks: 0 **Time Allowed:**

General Instructions:

Chapter Name	Multiple Choice Question	Numerical Question	Subjective Question	Total
Rational Numbers	3 (1)	3 (2)	-	**6 (9)**
Linear Equations in One Variable	3 (1)	-	3 (3) 3 (4)	**9 (24)**
Understanding Quadrilaterals	3 (1)	-	4 (3) 3 (4)	**10 (27)**
Data Handling	3 (1)	-	3 (3) 2 (4)	**8 (20)**
Squares and Square Roots	3 (1)	-	3 (3)	**6 (12)**
Cubes and Cube Roots	3 (1)	-	3 (3)	**6 (12)**
Comparing Quantities	3 (1)	-	3 (3)	**6 (12)**
Exponents and Powers	3 (1)	3 (2)	3 (3)	**9 (18)**
Total	**24 (24)**	**6 (12)**	**30 (98)**	**60 (0)**

CLASS 08 - MATHEMATICS

MATHEMATICS REVISION WORKSHEET TERM 1

Section A (MCQ)

1. Find $\frac{2}{5} \times \left(-\frac{3}{7}\right) - \frac{1}{6} \times \frac{3}{2} + \frac{1}{14} \times \frac{2}{5}$ **[1]**

   a) -11 b) -28

   c) $-\frac{11}{28}$ d) 28

2. Name the property under multiplication used in $\frac{-1}{3} \times (-3) = 1$. **[1]**

   a) none of these b) Associative property

   c) Reciprocal d) Commutative property

3. Multiplicative inverse of $\frac{0}{1}$ is **[1]**

   a) 1 b) -1

   c) not defined d) 0

4. Three consecutive integers add upto 51. What are these integers? **[1]**

   a) None of these b) 16, 17 and 18

   c) 16, 16 and 17 d) 18, 19 and 20

5. Solve: $\frac{x-5}{3} = \frac{x-3}{5}$ **[1]**

   a) 8 b) 2

   c) 6 d) 4

6. Find the solution of 2x - 3 = 7 **[1]**

   a) 3 b) 5

   c) none of these d) 4

7. Which of the following is not a random experiment? **[1]**

   a) Rolling a die b) Tossing a coin

   c) Throwing a stone from the roof of a building d) Choosing a card from a deck of 52 cards

8. The difference between the highest and the lowest value of the observations in a data is called: **[1]**

   a) Total frequency b) Sum of observation

   c) Mean d) Range

9. A coin is tossed three times. The number of possible outcomes is: **[1]**

a) 4 b) 8

c) 6 d) 3

10. Find the measure of each exterior angle of a regular polygon of 10 sides. **[1]**

a) none of these b) 36^o

c) 30^o d) 20^o

11. How many vertices are present in a heptagon? **[1]**

a) None of these b) 8

c) 7 d) 6

12. Identify the quadrilateral that has four right angles. **[1]**

a) square and rectangle b) None of these

c) kite d) rhombus

13. Without doing any calculation, find the numbers which are surely perfect squares. **[1]**

A. 2025
B. 2577
C. 2568
D. 2543

a) B b) D

c) C d) A

14. How many natural numbers lie between 15^2 and 16^2? **[1]**

a) 30 b) 14

c) 60 d) 15

15. Which of the following would end with digit 9? **[1]**

a) 607^2 b) 609^2

c) 605^2 d) 604^2

16. Find the cube of 75. **[1]**

a) 400175 b) 849705

c) 421875 d) 5625

17. Find the cubes of 2x, 3x and 4x. **[1]**

a) $4x^2, 9x^2, 16x^2$ b) $8x^2, 27x^2, 64x^2$

c) $8x^3, 27x^3, 64x^3$ d) $4x^3, 9x^3, 16x^3$

18. Which of the following numbers is not a perfect cube? **[1]**

a) 343 b) 567

c) 125 d) 216

19. Dinesh bought a second-hand T.V. for Rs 2,400, then spent Rs 600 on its repairs and sold it for **[1]**

Rs 3,500. Find his gain or loss per cent.

a) None of these
b) Loss of 20%
c) Gain of 16.67% (Approx)
d) Loss of 15%

20. A milkman sold two of his buffaloes for Rs 20,000 each. On one he made a gain of 5% and on the other a loss of 10%. Find his overall gain or loss. **[1]**

a) Loss of Rs 1,569.84
b) Gain of Rs 1,269.84
c) Loss of Rs 1,269.84
d) None of these

21. A bought a tape recorder for ₹8000 and sold it to B. B in turn, sold it to C, each earning a profit of 20%. Which of the following is true? **[1]**

a) A earns less profit than B
b) A and B earn the same profit
c) Cannot be determined
d) A earns more profit than B

22. In 2^n, n is known as **[1]**

a) Variable
b) Base
c) Exponent
d) Constant

23. $\left(\frac{1}{10}\right)^0$ is equal to **[1]**

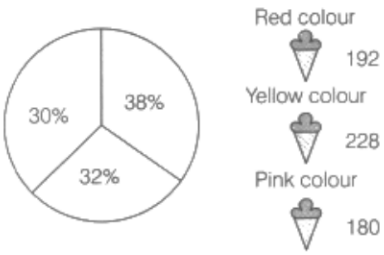
a) 10
b) $\left(\frac{1}{10}\right)$
c) 0
d) 1

24. For a non-zero integer x, $(x^4)^{-3}$ is equal to **[1]**

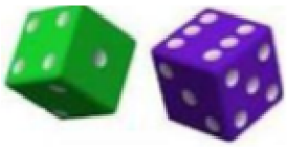
a) x^{12}
b) x^{-12}
c) x^{-64}
d) x^{64}

Section B

25. Find the least number which must be subtracted from 825 so as to get a perfect square. Also find the square root of the perfect square so obtained. **[3]**
26. Find the least number which must be added to 252 so as to get a perfect square. Also find the square root of the perfect square so obtained. **[3]**
27. 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in each row. **[3]**
28. Find the cube root of 512 by prime factorisation method. **[3]**
29. Find the smallest number by which 128 must be divided to obtain a perfect cube. **[3]**
30. Find the cube root of 91125 by prime factorisation method. **[3]**
31. The sum of three consecutive multiples of 8 is 888. Find the multiples. **[3]**
32. Solve the equation: $\frac{3y+4}{2-6y} = \frac{-2}{5}$ **[3]**
33. Solve the equation $\frac{x}{3} + 1 = \frac{7}{15}$ **[3]**
34. A letter of English alphabet is chosen at random. Find the probability that the letter chosen is a vowel. **[3]**
35. Identify which symbol should appear in each sector of the given pie chart. **[3]**



36. Two dices are rolled and the faces obtained are 4 and 6. Find the sum of the numbers on their opposite faces. **[3]**



37. Find the maximum number of acute angles which a convex, a quadrilateral, a pentagon and a hexagon can have. Observe the pattern and generalise the result for any polygon. **[3]**

38. If AM and CN are perpendiculars on the diagonal BD of a parallelogram ABCD, Is $\triangle AMD \cong \triangle CNB$? Give reason. **[3]**

39. Construct a rhombus PAIR, given that PA = 6 cm and $\angle A = 110°$. **[3]**

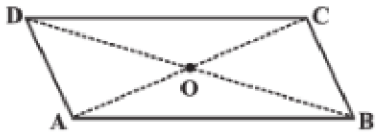
40. Given a parallelogram ABCD. Complete each statement along with the definition or property used. **[3]**

i. AD = _____

ii. $\angle DCB$ = _____

iii. OC = _____

iv. $m\angle DAB + m\angle CDA$ = _____



41. Vishakha offers a discount of 20% on all the items at her shop and still makes a profit of 12%. What is the cost price of an article marked at Rs 280? **[3]**

42. The list price of a frock is ₹220. A discount of 20% is announced on sales. What is the amount of discount on it and its sale price? **[3]**

43. The price of a TV is ₹13000. The sales tax charged on it is at the rate of 12%. Find the amount that Vinod will have to pay if he buys it. **[3]**

44. Simplify: $[3^{-1} + 4^{-1} + 5^{-1}]^0$ **[3]**

45. Evaluate : $\left(\frac{5}{8}\right)^{-7} \times \left(\frac{8}{5}\right)^{-4}$ **[3]**

46. The given table shows the crop production of a state in the year 2008 and 2009. Observe the table given below and answer the given questions. **[3]**

Crop	2008 Harvest (Hectare)	Increase/Decrease (Hectare) in 2009
Bajra	1.4×10^3	-100
Jowar	1.7×10^6	-440000
Rice	3.7×10^3	-100
Wheat	5.1×10^5	+190000

a. For which crop(s) did the production decrease?
b. Write the production of all the crops in 2009 in their standard form.
c. Assuming the same decrease in rice production each year as in 2009, how many acres will be harvested in 2015? Write in standard form.

47. Find the value of $\left(\frac{1}{3}\right)^{-4}$. **[2]**

48. Simplify; $5^{-2} \times 5^{3}$. **[2]**

49. Find the value of x in the expression $2^x + 2^x + 2^x = 192$ **[2]**

50. $\frac{7}{11}$ of all the money in Hamid's bank account is ₹ 77000. How much money does Hamid have in his bank account? **[2]**

51. If 16 shirts of equal size can be made out of 24m of cloth, how much cloth is needed for making one shirt? (Decimal value) **[2]**

52. The reciprocal of –1 is _____. **[2]**

53. One of the diagonals of a rhombus and its sides are equal. Find the angles of the rhombus. **[4]**

54. What is the sum of the measures of the angles of a non-convex quadrilateral? Will this property hold if the quadrilateral is not convex? **[4]**

55. In a parallelogram PQRS, the bisectors of ∠P and ∠Q meet at O. Find ∠POQ **[4]**

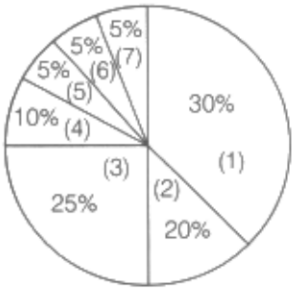
56. Hasan buys two kinds of cloth materials for school uniforms, shirt material that costs him Rs. 50 per metre and trouser material that costs him Rs 90 per metre. For every 3 meters of the shirt material he buys 2 metres of the trouser material. He sells the materials at 12% and 10% profit respectively. His total sale is Rs 36,600. How much trouser material did he buy? **[4]**

57. A steamer goes downstream from one point to another in 7 hours. It covers the same distance upstream in 8 hours. If the speed of the stream is 2 km/hr, find the speed of the steamer in still water and the distance between the points. **[4]**

58. Anima left one-half of her property to her daughter, one-third to her son and donated the rest to an educational institute. If the donation was worth ₹ 1,00,000, how much money did Anima have? **[4]**

59. In a simultaneous throw of a pair of dice, find the probability of getting (i) 8 as the sum (ii) A doublet of odd prime numbers **[4]**

60. A financial counselor gave a client this pie chart describing how to budget his income. If the client brings home 50000 each month, how much should he spend in each category? **[4]**



1. Housing
2. Food (including eating out)
3. Car loan and maintenance
4. Utilities
5. Phone
6. Clothing

7. Entertainment

AJITA PRIVATE TUITION

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ONLINE CBSE-ICSE-SSC SPECIALIST

Class 08 - Science
SCIENCE REVISION WORKSHEET TERM 1

Maximum Marks: 0 **Time Allowed:**

General Instructions:

Chapter Name	Fill-in-the-blank	Multiple Choice Question	Subjective Question	Total
Crop Production and Management	-	2 (1)	2 (3) 1 (4)	**5 (12)**
Microorganisms Friend And Foe	-	3 (1)	2 (2) 1 (4)	**6 (11)**
Materials Metals and Non Metals	-	3 (1)	2 (3) 2 (4)	**7 (17)**
Coal and Petroleum	-	3 (1)	1 (2) 1 (3) 1 (4)	**6 (12)**
Cell Structure and Functions	-	3 (1)	2 (4)	**5 (11)**
Force and Pressure	-	3 (1)	1 (3) 1 (4)	**5 (10)**
Friction	-	3 (1)	2 (2) 3 (3) 4 (4)	**12 (32)**
(14 Grouped Questions) Crop Production and Management Microorganisms Friend And Foe Materials Metals and Non Metals Coal and Petroleum Cell Structure and Functions Force and Pressure Friction	1 (14)	-	-	**1 (14)**
Total	**1 (14)**	**20 (20)**	**26 (85)**	**47 (0)**

CLASS 08 - SCIENCE

SCIENCE REVISION WORKSHEET TERM 1

Section A

1. An agricultural implement plow is used for: **[1]**

   a) Adding manure to the fields
   b) Sowing the seeds
   c) Loosening the soil
   d) Irrigating the fields

2. The type of crop shown in the following image is : **[1]**

   a) cereal crop
   b) vegetable crop
   c) pulse crop
   d) oil seed crop

3. Read the following statements : **[1]**

   i) Bacteria are unicellular organisms.

   ii) Bacteria lack cell membrane but contain a cell wall.

   a) both are wrong
   b) Statement ii) is correct but i) is wrong.
   c) both are correct
   d) Statement i) is correct but ii) is wrong.

4. The autotrophic filamentous microbes living in water or moist soil are : **[1]**

   a) algae
   b) protozoa
   c) bacteria
   d) fungi

5. The property of body to fight with pathogens is called: **[1]**

   a) immunity
   b) vaccinity
   c) medical treatment
   d) antipathogenicity

6. Which metal is used in making electrical wires for household wiring and electric motors? **[1]**

   a) Sodium
   b) Aluminium
   c) Copper
   d) Potassium

7. Mercury is used in thermometers due to: **[1]**

a) its gaseous nature
b) its liquid nature
c) its medicinal property
d) high density

8. Mineral is : **[1]**

a) natural material
b) both natural and artificial
c) only pure element
d) artificial material

9. Read the following statements : **[1]**

i) Asphalt is not used for making roads.
ii)Paraffin wax is used to make shoe polish.

a) both are correct
b) both are wrong
c) statement i) is correct but ii) is wrong
d) statement ii) is correct but i) is wrong

10. Identify the gas that is generally produced when coal is burnt in the presence of a lot of air. **[1]**

a) Sulphur dioxide
b) Carbon dioxide
c) Carbon monoxide
d) Nitrogen dioxide

11. Read the following statements: **[1]**

i. Kerosene is used as an illuminant.
ii. Carbon black is used for production of petroleum gas.

a) both are wrong
b) statement ii) is correct but i) is wrong
c) both are correct
d) statement i) is correct but ii) is wrong

12. Read the following pairs of examples of organisms: **[1]**

The pair that belongs to the group prokaryotes is _____.

a) moss and sponge
b) bacteria and blue-green alga
c) yeast and Amoeba
d) penicillium and Spirogyra

13. Read the following statements: **[1]**

i. Genes are located on ribosomes.
ii. Genes transfer characters from one generation to the next.

a) both are wrong
b) statement i) is correct but ii) is wrong
c) statement ii) is correct but i) is wrong
d) both are correct

14. Which of the following is not a cell? **[1]**

a) Virus
b) Red Blood Corpuscle (RBC)
c) Bacterium
d) Spermatozoa

15. The lateral pressure exerted by liquid at same height is **[1]**

a) Less in right direction
b) Equal in all direction
c) More in left direction
d) Not equal in all direction

16. How much force is applied on a body of mass 10 kg to increase its acceleration by 2m/s sq? **[1]**

a) 20 N
b) 10 N
c) 5 N
d) 12 N

17. The force required to move a stationary body is called **[1]**

a) Gravitational force
b) Unbalanced force
c) Frictional force
d) Balanced force

18. The frictional force exerted by fluids is also called **[1]**

a) Drag
b) Smug
c) Slag
d) Rung

19. A boy rolls a rubber ball on a wooden surface. The ball travels a short distance before coming to rest. To make the same ball travel longer distance before coming to rest, he may **[1]**

a) sprinkle talcum powder on the wooden surface.
b) cover the ball with a piece of cloth.
c) sprinkle sand on the wooden surface.
d) spread a carpet on the wooden surface.

20. In which of the substance friction is less **[1]**

a) Kerosene
b) Water
c) Air
d) Ice

Section B

21. Paheli watched her grandmother making mango pickle. After she bottled the pickle, her grandmother poured oil on top of the pickle before closing the lid. Paheli wanted to know why oil was poured? Can you help her understand why? **[2]**

22. Give an account of two important discoveries in the past those had made the study of microorganisms interesting. **[2]**

23. Explain the process of formation of petroleum. **[2]**

24. On what factors does the fluid friction depends? **[2]**

25. A marble is allowed to roll down an inclined plane from a fixed height. At the foot of the inclined plane, it moves on a horizontal surface **[2]**

a. covered with silk cloth
b. covered with a layer of sand and
c. covered with a glass sheet.

On which surface will the marble move the shortest distance. Give a reason for your answer.

Section C

26. What are weeds? How can we control them? **[3]**

27. Explain modern methods of irrigation. **[3]**

28. Explain that metals are good conductors of electricity with the help of an activity. **[3]**

29. What happens when a magnesium ribbon is heated in presence of air? **[3]**

30. While driving what are the tips we must follow to save petrol/diesel/natural gas? **[3]**

31. Fruits detached from a tree fall down due to the force of gravity. We know that a force arises due to the interaction between two objects. Name the objects interacting in this case. **[3]**

32. Two boys are riding their bicycles on the same concrete road. One has new tires on his bicycle while the other has tires that are old and used. Which of them is more likely to skid while moving through a patch of the road which has lubricating oil spilled over it? **[3]**

33. Cartilage is present in the joints of our body, which helps in their smooth movement. With advancing age, this cartilage wears off. How would this affect the movement of joints? **[3]**

34. Why is it not easy to move an object from its static position? **[3]**

Section D

35. Briefly describe the sprinkler system of irrigation. **[4]**

36. Explain how microbes are harmful to us. **[4]**

37. Complete the following reactions: **[4]**

    1. $Zn + H_2SO_4 \rightarrow$ .....
    2. $Fe + CuSO_4 \rightarrow$ .....
    3. $Cu + FeSO_4 \rightarrow$ .....
    4. $Mg + HCl \rightarrow$ .....
    5. $Fe + H_2O \rightarrow$ .....

38. Discuss some chemical properties of metals. **[4]**

39. Write some important uses of the various constituents of petroleum. **[4]**

40. Write the functions of **[4]**

    a. Vacuole
    b. Plastids
    c. Chloroplasts
    d. Chromosomes

41. Give an experiment to show that cell wall is absent in animal cells. **[4]**

42. When a person stands on a cushion, the depression is much more than when he lies down on it. Explain with a reason. **[4]**

43. Show with the help of activity that friction depends on the nature of two surfaces? **[4]**

44. Describe some examples where we deliberately increase friction? **[4]**

45. Show with help of activity that weight of the object increase friction? **[4]**

46. Difference between rolling, static and sliding friction? **[4]**

Section E

47. Fill in the blanks: **[14]**

    a) _____ practices are the activities used for cultivation of crops.
    b) Damaged seeds would _____ on top of water.
    c) _____ are the smallest of all microorganisms.
    d) Protozoa are _____ like just as algae are plant like.
    e) The only liquid non-metal is _____.
    f) **Metallic oxide** is _____ in **nature** while non **metallic oxides** are acidic in **nature**.

g) Fuels produce more heat on _____.

h) Coal and natural gas are _____ fuels.

i) Cell is discovered by _____.

j) Cell is discovered in the year _____.

k) The pull or push is called _____.

l) Force acting on per unit area is called _____.

m) Friction opposes the _____ between the surfaces in contact with each other.

n) Friction is the force which _____ the relative motion between the two surfaces.

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Class 08 - Social Science

SOCIAL SCIENCE REVISION WORKSHEET TERM 1

Maximum Marks: 144 **Time Allowed:**

General Instructions:

Chapter Name	Fill-in-the-blank	Multiple Choice Question	Subjective Question	Total
From Trade to Territory The Company Establishes Power	-	2 (1)	2 (4)	**4 (10)**
Tribals Dikus and the Vision of a Golden Age	-	3 (1)	3 (4)	**6 (15)**
When People Rebel 1857 and After	-	2 (1)	1 (4)	**3 (6)**
Resources	-	2 (1)	1 (3) 2 (4)	**5 (13)**
Land Soil Water Natural Vegetation and Wildlife Resources	-	3 (1)	3 (3) 3 (4)	**9 (24)**
Mineral and Power Resources	-	2 (1)	2 (2) 1 (3) 1 (4)	**6 (13)**
Judiciary	-	2 (1)	2 (2) 3 (3) 1 (4)	**8 (19)**
Understanding Laws	-	2 (1)	2 (2) 2 (4)	**6 (14)**
Understanding Our Criminal Justice system	-	2 (1)	3 (3) 1 (4)	**6 (15)**
(7 Grouped Questions) From Trade to Territory The Company Establishes Power Tribals Dikus and the Vision of a Golden Age Mineral and Power Resources Understanding Laws	1 (7)	-	-	**1 (7)**
Total	**1 (7)**	**20 (20)**	**33 (109)**	**54 (144)**

CLASS 08 - SOCIAL SCIENCE

SOCIAL SCIENCE REVISION WORKSHEET TERM 1

Section A

1. The Governor-General who was impeached by: **[1]**

   a) Lord Hasting
   b) Lord Dalhousie
   c) Warren Hasting
   d) Lord Mountbatten

   OR

   A few statements with respect to the outcome of the Battle of Plassey are given below. Choose the one that is not with respect to the battle on 23rd June 1757.

   A. Mir Jafar was captured and put to death by the British.
   B. The East India Company got the trading rights in Bengal, Bihar and Orissa.
   C. The company was given the zamindari rights of 24 Parganas.
   D. Battle of Plassey paved the way for British rule in India.

   a) Only B
   b) Only C
   c) Only D
   d) Only A

2. A new system of justice was established by the British in India with two courts, Criminal court and Civil court in each district. Name the year in which this system was introduced by the British. **[1]**

   a) 1657
   b) 1850
   c) 1800
   d) 1772

3. Why were the Baigas of Central India reluctant to do work for others? **[1]**

   A. Since the Baigas were money lenders, they thought lending money was more profitable.
   B. Since Baigas were tribal chieftains, they thought they cannot work as labourers.
   C. Since Baigas saw themselves as people of the forest, they thought it below their dignity to work as a labourer.
   D. Since Baigas only reared cattle, they thought they cannot work as labourers.

   a) Only B
   b) Only D
   c) Only C
   d) Only A

4. What did the Bakarwals of Kashmir rear? **[1]**

   a) Only bullocks
   b) Only horses
   c) Only goats
   d) Only cattle

5. The British described the tribal people as _____. **[1]**

a) Rich
b) Civilians
c) Poor
d) Savage

6. Name the able commander in chief of Nana Saheb who led the revolt in Kanpur. **[1]**

a) Maulvi Ahmadullah
b) Tantia Tope
c) Bahadur Shah Zafar
d) Mangal Pandey

7. Which one from the following options refers to the term Firangis? **[1]**

a) Residents of India
b) Foreigners
c) Landlords
d) Money lenders

8. From the following list, which one cannot be considered as a Localised resource. **[1]**

a) Copper
b) Coal
c) Iron
d) Sunlight

9. Using resources carefully and giving them time to get renewed can be termed as _____. **[1]**

a) recycling
b) resource conservation
c) ubiquitous
d) technology

10. Based on the clues given below, guess Who am I? **[1]**

i. Three-fourths of the earth surface is covered by this
ii. An important renewable natural resource
iii. Though primarily used for drinking and washing, also used for productive purposes like irrigation, generation of electricity, etc

a) Resources
b) Soil
c) Mud
d) Water

11. What does the term Land degradation refer to? **[1]**

a) Presence of rocks and minerals in the soil
b) Decline in the use of fertilizers
c) The slope of the land
d) Decline in the productivity of cultivated land

12. A few factors which lead to soil degradation are given below, pick out the one that is not a factor for soil degradation. **[1]**

a) Mulching
b) Rain wash and floods
c) Overuse of fertilizers
d) Deforestation

13. What is the name given to the electricity produced from coal? **[1]**

a) Fossil fuel
b) Nuclear power
c) Thermal power
d) Geo thermal

14. Identify the type of energy generated. It is pollution free, inexhaustible source of energy. In this the kinetic energy of wind is converted into electrical energy through turbines. This was **[1]**

used for grinding grain and lifting water since times immemorial.

a) Wind energy
b) Solar energy
c) Geothermal energy
d) Tidal energy

15. When was the Rowlatt Act passed? **[1]**

a) 1919
b) 1920
c) 1918
d) 1922

OR

Who introduced the rule of law in India?

a) British
b) Portuguese
c) Dutch
d) Mughals

16. Which one of the following is the main cause of Marginalisation? **[1]**

a) Different education
b) All of these
c) Different Languages
d) Different films

OR

Which Act shows British arbitrariness?

a) The Sedition Act of 1870
b) Both The Sedition Act of 1870 to The Rowlatt Act of 1919
c) The Rowlatt Act of 1919
d) None of these

17. The number of High Court is _____. **[1]**

a) 24
b) 30
c) 25
d) 28

OR

The memo should also be attested by at least _____ witness who could include a family member of the family.

a) one
b) four
c) three
d) two

18. This refers to the court declaring that a person is not guilty of the crime which he/she was tried for by the court. **[1]**

a) Acquit
b) Violation
c) Impartial
d) Accused

OR

The Supreme Court of India has laid down specific requirements and procedures that the police

and other agencies have to follow for the arrest, detention, and interrogation of any person. These are known as the:

a) D.K. Pal Guidelines
b) D.K. Tagore Guidelines
c) D.K. Verma Guidelines
d) D.K. Basu Guidelines

19. According to _____ every individual charged of a crime has to be given a fair trial. **[1]**

a) Police
b) Law
c) Judge
d) Constitution

OR

Which one of the following is a function of Defence lawyer?

a) Arrest the accused
b) Cross examination
c) Investigation
d) Pass the sentence

20. Define the first step of investigation into crime. **[1]**

a) Charge Sheet
b) FIR
c) Punishment
d) Investigation

OR

An investigation include:

a) Statement of bill
b) Statement of Witness
c) Statement of Judge
d) All of these

Section B

21. Describe the mineral distribution in North America. **[2]**
22. Give five ways in which you can save energy at home. **[2]**
23. How was the Rowlatt Act protested by the Indian nationalists? What was its consequence? **[2]**
24. Explain the Hindu Succession Amendment Act, 2005. **[2]**
25. Why do you think the introduction of Public Interest Litigation (PIL) in the 1980's is a significant step in ensuring access to justice for all? **[2]**
26. In principle, the courts are accessible to all. But what happens in reality? **[2]**

Section C

27. Differentiate between the potential and actual resources. **[3]**
28. What are the major threats to the environment? **[3]**
29. Name the factors affecting land use pattern. **[3]**
30. Suggest ways to conserve water. **[3]**
31. Write common uses of minerals. **[3]**
32. What values can be learned from the functioning of Indian Judiciary? **[3]**
33. Write the meaning of the words given below: **[3]**

i. To appeal
ii. Compensation
iii. Eviction
iv. Violation

34. What is the structures of the courts in India? **[3]**

35. What is the importance of the Public Prosecutor? **[3]**

36. What are known as the D.K. Basu Guidelines issued by the Supreme Court of India? Write about it. **[3]**

37. What Fundamental Rights have been guaranteed by Article 22 of the Constitution and criminal law to every arrested person? **[3]**

Section D

38. What were the areas of conflict between the Nawab of Bengal and the East India Company? **[5]**

39. Who introduced the policy of 'paramount'? What did it mean? What sort of resistance did the company face? **[5]**

40. What was Birsa's vision of a golden age? Why do you think such as vision appealed to the people of the region? **[5]**

OR

How did different tribal groups live?

41. How did traders and money lenders lead to the exploitation of the tribes? **[5]**

OR

What problems did shifting cultivators face under British rule?

42. Give a brief life sketch of Birsa Munda. **[5]**

43. Why were the Indian sepoys in the employ of the company discounted? Give sufficient reasons. **[5]**

44. Write a brief note on wind power. **[5]**

45. What do you mean by resource conservation? Why do humans need to conserve natural resources? **[5]**

46. What is the threat to vegetation and wildlife? What is the need to conserve them? How can we do this? **[5]**

47. How we can conserve natural vegetation and wildlife? **[5]**

48. Differentiate between the CITES and vegetation. **[5]**

49. Describe the main types of formations in which the minerals occur. **[5]**

50. Why are laws required? **[5]**

OR

Write a note on the Rowlatt Act.

51. Describe the Rowlatt Act an arbitrary law with an example? **[5]**

52. Briefly describe the functions of Judiciary. **[5]**

53. According to Article 22 of the Constitution, every person has a Fundamental Right to be defended by a lawyer. What have you learnt from the above? **[5]**

Section E

54. Fill in the blanks: **[7]**

a) The people of _____ joined the great revolt that broke out in 1857.

b) _____ was made the Nawab of Bengal after the defeat of Sirajuddaulah at Plassey.

c) _____ is a field left uncultivated for a while so that the soil recovers fertility.

d) The _____ wanted tribal groups to settle down and become _____ cultivators.

e) Hazaribagh, in present-day Jharkhand, was an area where the Santhals reared _____.

f) Metallic minerals are generally found in _____ and _____ rock formations.

g) The first colonial law was _____.

Solution

Class 08 - Mathematics

MATHEMATICS REVISION WORKSHEET TERM 1

Section A (MCQ)

1. **(c)** $-\frac{11}{28}$
   Explanation: $\frac{2}{5} \times (-\frac{3}{7}) - \frac{1}{6} \times \frac{3}{2} + \frac{1}{14} \times \frac{2}{5}$
   $\frac{-6}{35} - \frac{3}{12} + \frac{2}{70}$
   $\frac{-72-105+12}{420}$
   $= \frac{-11}{28}$
2. **(c)** Reciprocal
   Explanation: The answer is reciprocal. Because (-3) and its reciprocal $\frac{-1}{3}$ are multiplied to get the answer.
3. **(c)** not defined
   Explanation: not defined
4. **(b)** 16, 17 and 18
   Explanation: Let the interest are x, x + 1, x - 1.
   Therefore, x + x + 1 + x - 1 = 51
   or, 3x = 51
   or, x = 17
   One number is 17.
   Other are 16 and 18.
5. **(a)** 8
   Explanation: $\frac{x-5}{3} = \frac{x-3}{5}$
   by cross multiplication
   or, 5(x - 5) = 3(x - 3)
   or, 5x - 25 = 3x - 9
   by transposing
   or, 5x - 3x = -9 + 25
   or, 2x = 16
   or, x = $\frac{16}{2}$
   or, x = 8
6. **(b)** 5
   Explanation: by transposing,the signs will be change
   2x-3=7
   2x=7+3
   2x=10
   x=10/2
   x=5.
   The correct option is 5
7. **(c)** Throwing a stone from the roof of a building
   Explanation: Tossing a coin, rolling a die and choosing a card from a deck of 52 cards are the random experiments, as we don't have an idea about the output of these experiments. But if we throw a stone from the roof of a building, we know the output, it will fall on the ground.
8. **(d)** Range
   Explanation: Range
9. **(b)** 8
   Explanation: Number of possible outcomes is 8, i.e. HHH, HHT, HTH, THH, TTH, THT, HTT, TTT.

10. **(b)** 36^o

Explanation: exterior angle= $\frac{360^0}{number-of-sides}$

n = $\frac{360^0}{10}$ = 36^o

11. **(c)** 7

Explanation: A heptagon is a seven-sided polygon. It is also sometimes called a septagon.

12. **(a)** square and rectangle

Explanation: Only square and rectangle are two quadrileterals whose all angles are right angles.

13. **(d)** A

Explanation: The answer is 2025 as the other numbers are 2577, 2568 and 2543 which cannot be perfect squares as a number cannot be a perfect square if it ends with 2, 3, 7, 8.

14. **(a)** 30

Explanation: Between the squares of any two consecutive numbers there lies 2m natural numbers where 'm' is the smaller of the two consecutive numbers given. Here, m = 15, so 2m = 2 $\times$ 15 = 30 natural numbers will lie between 15^2 and 16^2.

15. **(a)** 607^2

Explanation: The answer is 607^2 as here the unit's place is 7 so 7^2 = 49 whose unit's place is 9. So, 607^2 would end with digit 9

16. **(c)** 421875

Explanation: $(75)^3$ = 75 $\times$ 75 $\times$ 75

= 421875

17. **(c)** $8x^3$, $27x^3$, $64x^3$

Explanation: The answer is $8x^3$, $27x^3$, $64x^3$

$(2x)^3$ = 2x $\times$ 2x $\times$ 2x = $8x^3$

$(3x)^3$ = 3x $\times$ 3x $\times$ 3x = $27x^3$

$(4x)^3$ = 4x $\times$ 4x $\times$ 4x = $64x^3$

18. **(b)** 567

Explanation: 567 = 3 $\times$ 3 $\times$ 3 $\times$ 3 $\times$ 7

Clearly, 567 is not a perfect cube, because in grouping, the factors of equal factors, we are left with two factors 3 $\times$ 7.

19. **(c)** Gain of 16.67% (Approx)

Explanation: Purchase price of T.V. = Rs 2,400

Repairs = Rs 600

Total Purchase Price = (2,400 + 600)

= Rs 3,000

Selling Price = Rs 3,500

Gain = 3,500 - 3,000

= Rs 500

Gain (%) = $\frac{500}{3000} \times 100$

= 16.67% (Approx)

20. **(c)** Loss of Rs 1,269.84

Explanation: Let the C.P. one buffalo = Rs 100

Gain = Rs 100 $\times$ 5% = Rs 5

S.P. = Rs 105

If S. P. 105 then C. P. = 100

If S.P. 20,000 then C.P. = $\frac{100 \times 20000}{100}$

= 19047.62

Gain = 20000 - 19047.62

= Rs 952.38

S.P. of another buffalo = $\frac{100 \times 20000}{90}$
= Rs 22222.22
Loss = 22222.22 - 20000
= Rs 2222.22
Total Loss = Ra (2222.22 - 952.38)
= Rs 1,269.84 (approx)

21. **(a)** A earns less profit than B
Explanation: ∵ Cost price of tape recorder for A = ₹8000
∴ Cost price of tape recorder for B = 20% profit on cost price for A
= $\frac{20}{100} \times 8000 + 8000$
= 20 × 80 + 8000
= 1600 + 8000 = ₹9600
Cost price of tape recorder for C = 20% profit on cost price for B
= $\frac{20}{100} \times 9600 + 9600$
= 1920 + 9600 = ₹11520
Here, profit for A = ₹1600
Profit for B = ₹1920
So, A earns less profit than B.

22. **(c)** Exponent
Explanation: We know that a is called the nth power of a^n, and is also read as a raised to the power n. The rational number a is called the base and n is called the exponent (power or index). in the same way in 2^n, n is known as exponent.

23. **(d)** 1
Explanation: Using law of exponents, $a^0 = 1$ [∵ a is non-zero integer]
∴ $\left(\frac{1}{10}\right)^0 = 1$

24. **(b)** x^{-12}
Explanation: Using law of exponents, $(a^m)^n = (a)^{m \times n} = (a)^{mn}$ [∵ a is non-zero integer]
Similarly, $(x^4)^{-3} = (x)^{4 \times (-3)} = (x)^{-12}$

Section B

25.
```
        2 8
     ┌──────
  2  │ 8 25
     │-4
     ├──────
 48  │ 4 25
     │-3 84
     ├──────
     │   41
```
This shows that 28^2 is less than 825 by 41. This means, if we subtract the remainder from the number, we get a perfect square, So, the required least number is 41.
Therefore, the required perfect square is 825 – 41 = 784
Hence, $\sqrt{784}$=28.

26.
```
        15
     ┌──────
  1  │ 2 52
     │-1
     ├──────
 25  │ 1 52
     │-1 25
     ├──────
     │   27
```
This shows that $15^2 < 252$
Next perfect square is $16^2 = 256$
Hence, the number to be added is $16^2 – 252 = 256 – 252 = 4$

Therefore, the perfect square so obtained is 252 + 4 = 256
Hence, $\sqrt{256}$ = 16.

27. Let the number of rows be x.
Then number of plants in each row = x
$\therefore$ Number of plants in x rows = x $\times$ x = x^2
But 2025 plants are to be planted in a garden.
$\therefore$ x^2 = 2025
$\therefore x = \sqrt{2025}$
The prime factorisation of 2025 is

3	2025
3	675
3	225
3	75
5	25
	5

2025 = $\underline{3} \times \underline{3} \times \underline{3} \times \underline{3} \times \underline{5} \times \underline{5}$
$\therefore x = \sqrt{\underline{3 \times 3} \times \underline{3 \times 3} \times \underline{5 \times 5}}$
$\therefore$ x = 3 $\times$ 3 $\times$ 5
$\therefore$ x = 45
Hence, the number of rows is 45 and the number of plants in each row is 45.

28.

2	512
2	256
2	128
2	64
2	32
2	16
2	8
2	4
2	2
	1

Prime factorisation of 512 is
$\underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times \underline{2}$ [grouping the factors in triplets]
= $2^3 \times 2^3 \times 2^3 = (2 \times 2 \times 2)^3 = 8^3$
Therefore, $\sqrt[3]{512}$= 8

29.

2	128
2	64
2	32
2	16
2	8
2	4
2	2
	1

By prime factorisation,
128 = $\underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times 2$ [grouping the factors in triplets]
In the above factorisation, 2 remains after grouping the 2's in triplets. Therefore, 128 is not a perfect cube. If we divide the number by 2, then in the prime factorisation of the quotient, this 2 will not remain. In that case,
128 $\div$ 2 = $\underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times \underline{2} \times \underline{2}$
64 = $2^3 \times 2^3$
= $(2 \times 2)^3$
= 4^3 which is a perfect cube.
Hence, the smallest whole number by which 128 must be divided to obtain a perfect cube is 2.

30.

3	91125
3	30375
3	10125
3	3375
3	1125
3	375
5	125
5	25
5	5
	1

Prime factorisation of 91125 is

$\underline{3} \times \underline{3} \times \underline{3} \times \underline{3} \times \underline{3} \times \underline{3} \times \underline{5} \times \underline{5} \times \underline{5}$ [grouping the factors in triplets]

$= 3^3 \times 3^3 \times 5^3 = (3 \times 3 \times 5)^3 = 45^3$

Therefore, $\sqrt[3]{91125} = 3 \times 3 \times 5 = 45.$

31. Let the three consecutive multiples of 8 be 8x, 8(x + 1) and 8(x + 2)

∵ Their sum is 888

∴ 8x + 8(x + 1) + 8(x + 2) = 888

∴ 8{x + (x + 1) + (x + 2)} = 888

∴ 8 (3x + 3) = 888

∴ 3x + 3 = $\frac{888}{8}$ ... [Dividing both sides by 8]

∴ 3x + 3 = 111

∴ 3(x + 1) = 111

∴ $x + 1 = \frac{111}{3}$ ... [Dividing both sides by 3]

∴ x + 1 = 37

∴ x = 37 – 1 ... [Transposing 1 to R.H.S]

∴ x = 36

∴ 8x = 8 × 36 = 288

∴ 8(x + 1) = 8(36 + 1) = 8 × 37 = 296

and 8(x + 2) = 8(36 + 2) = 8 × 38 = 304

Hence, the desired multiples are 288, 296 and 304

Verification,

288 = 8 × 36

296 = 8 × 37 = 8 × (36 + 1) = 8 × 36 + 8 = 288 + 8

304 = 8 × 38 = 8 × (37 + 1) = 8 × 37 + 8 = 296 + 8

288 + 296 + 304 = 888

32. $\frac{3y+4}{2-6y} = \frac{-2}{5}$

$\left(\frac{3y+4}{2-6y}\right) \times (2 - 6y) = \frac{-2}{5} \times (2 - 6y)$ ... [Multiplying both sides by 2 – 6y]

∴ $3y + 4 = \frac{-2}{5}(2 - 6y)$

∴ 5(3y + 4) = – 2(2 – 6y) ... [Multiplying both sides by 5]

∴ 15y + 20 = – 4 + 12y

∴ 15y – 12y = – 4 – 20 ... [Transposing 12y to L.H.S. and 20 to R.H.S.]

∴ 3y = – 24

∴ $y = \frac{-24}{3}$ ... [Dividing both sides by 3]

∴ y = –8 this is the required solution.

33. $\frac{x}{3} + 1 = \frac{7}{15}$

∴ $\frac{x}{3} = \frac{7}{15}$ - 1 [Transposing 1 to R.H.S]

∴ $\frac{x}{3} = \frac{7-15}{15}$

∴ $\frac{x}{3} = \frac{-8}{15}$

∴ x = $\left(-\frac{8}{15}\right) \times 3$ ... [Multiplying both sides by 3]

$\therefore x = \frac{-8}{5}$ ... this is the required solution.

Verification

L.H.S. $= \frac{x}{3} + 1$

$= \frac{1}{3}\left(\frac{-8}{5}\right) + 1$

$= \frac{-8}{15} + 1$

$= \frac{-8+15}{15}$

$= \frac{7}{15}$

= R.H.S.

34. Total number of outcomes= 26

vowel= a, e, i, o, u

Probability of an event= $\frac{Number\ of\ outcomes\ that\ make\ an\ event}{Total\ number\ of\ outcomes\ of\ the\ \text{experiment}}$

The probability that the letter chosen is a vowel = 5/26.

35. Total quantity obtained from the given three colours = 192 + 228 + 180 = 600

Also, 600 = 100%

or $1 = \frac{100}{600}\% = \frac{1}{6}\%$

or 192 = $\frac{1}{6} \times 192$ = 32%

or 228 = $\frac{1}{6} \times 228$ = 38%

or 180 = $\frac{1}{6} \times 180$ = 30%

Red colour → 32%

$\therefore$ Yellow colour → 38%

Pink colour → 30%

36. We know that the sum of opposite faces of a dice is 7.

So the face opposite to 4 is 7 - 4 = 3

And the face opposite to 6 is 7 - 6 = 1

Hence, required sum of the numbers = 3 + 1 = 4

37. We know that if the interior angle is acute, then the corresponding exterior angle is greater than 90^o.

Now, suppose a convex polygon has four or more acute angles. Since the polygon is convex, all the exterior angles are positive, so the sum of the exterior angle is at least the sum of the interior angles.

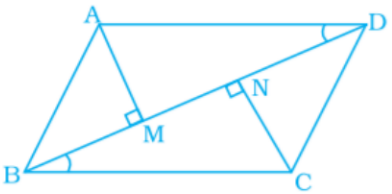
Now, supplementary of the four acute angles, which is greater than $4 \times 90^o = 360^o$

However, it is impossible.

Since the sum of the exterior angle of a polygon must equal to 360^o and cannot be greater than it.

It follows that the maximum number of an acute angle in a convex polygon is 3.

38. The following figure can be drawn according to given information:



In Δ AMD and ΔCNB,

AD = BC (opposite sides of the parallelogram)

$\angle$AMB = $\angle$CNB [Each 90^o]

$\angle$ADM = $\angle$NBC [AD || BC and BD is transversal]

$\therefore \triangle AMD \cong \triangle CNB$ [AAS congruent criteron]

39. We know that Rhombus has all sides equal.

Steps of construction:

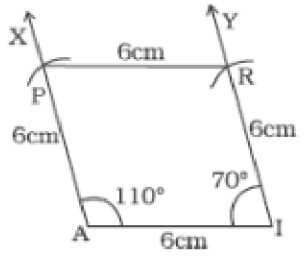
i. Draw AI = 6 cm

ii. Draw ray AX such that ∠IAX = 110° and draw IY such that ∠AIY = 70°[Adjacent angles of rhombus are supplementary]

iii. With A and I as centres and radius 6 cm draw arcs intersecting AX and IY at P and R respectively.

iv. Join PR.

v. Thus, PAIR is the required rhombus.



40. i. AD = BC [Opposite sides of a parallelogram are equal.]

ii. ∠DCB = ∠DAB [Opposite angles of a parallelogram are equal.]

iii. OC = OA [∵Diagonals of a parallelogram bisect each other]

iv. $m\angle DAB + m\angle CDA = 180^\circ$ [If two parallel lines are intersected by a transversal then the sum of the consecutive interior angles on the same sides of the transversal is 180°.]

41. We have,

Marked Price = Rs 280

Discount = 20% of Rs 280

$= \frac{20}{100} \times 280$

= Rs 56

So, selling price = Rs (280 – 56)

= Rs 224

Now, Let the cost price be Rs 100

Profit = 12% of Rs 100

= Rs 12

So, selling price = Rs (100 + 12) = Rs 112

If the selling price is Rs 112 then cost price = Rs 100

If the selling price is Rs 224 then cost price = Rs $\left(\frac{100}{112} \times 224\right)$

= Rs 200.

42. Marked price is same as the list price.

20% discount means that on ₹ 100(MP), the discount is ₹ 20.

By unitary method, on ₹1 the discount will be ₹$\frac{20}{100}$.

On ₹ 220, discount = ₹$\frac{20}{100} \times 220$ = ₹ 44

The sale price = (₹ 220 – ₹ 44) = ₹ 176

43. Price of TV = ₹ 13000

Sales tax charged on it = 12% of ₹ 13000

$= ₹\frac{12}{100} \times 13000$

= ₹ 1560

∴ Sale price + sales tax

= ₹ 13000 + ₹ 1560

= ₹ 14560

Hence, the amount that Vinod will have to pay if he buys it is ₹ 14560.

44. $[3^{-1} + 4^{-1} + 5^{-1}]^0 \left[\frac{1}{3} + \frac{1}{4} + \frac{1}{5}\right]^0$

$= \left[\frac{20+15+12}{60}\right]^0$

$= \left(\frac{47}{60}\right)^0$

= 1

45. $\left(\frac{5}{8}\right)^{-7} \times \left(\frac{8}{5}\right)^{-4}$

$= \frac{5^{-7}}{8^{-7}} \times \frac{8^{-4}}{5^{-4}}$

$= \frac{5^{-7}}{5^{-4}} \times \frac{8^{-4}}{8^{-7}}$

$= 5^{(-7)-(-4)} \times 8^{(-4)-(-7)}$

$= 5^{-7+4} \times 8^{-4+7}$

$= 5^{-3} \times 8^{3}$

$\frac{1}{5^3} \times 8^3$

$= \frac{8^3}{5^3}$

$= \frac{512}{125}$

$= 4\frac{12}{125}$

46. a. On the basis of given table, bajra, jowar and rice crops' production decreased.

    b. The production of all crop in 2009

    Bajra = 1.4×10^3 - 0.1×10^3= 1.3×10^3

    Jowar = 1.7×10^6 - 44×10^4

    = 1.7×10^6 - 0.44×10^6 = $1.2^6 \times 10^6$

    Rice = 3.7×103 - 0.1×10^3 = 3.6×10^3

    Wheat = 5.1×10^5 + 19×10^4

    = 5.1×10^5 + 1.9×10^5 = 7×10^5

    c. Incomplete information

47. 81

    Explanation:

    $\left(\frac{1}{3}\right)^{-4} = \frac{1}{\left(\frac{1}{3}\right)^4} = \frac{1}{\frac{1^4}{3^4}} = \frac{1}{\frac{1}{81}} = \frac{81}{1} = 81$

48. 5

    Explanation:

    $5^{-2} \times 5^3 = \frac{1}{5^2} \times 5^3 = \frac{5^3}{5^2} = 5^{3-2} = 5^1 = 5$

49. 6

    Explanation:

    We have, $2^x + 2^x + 2^x = 192$

    $= 2^x (1 + 1 + 1) = 192$

    $= 3 \times (2^x) = 192$

    $\Rightarrow 2^x = \frac{192}{3} = 64$

    $\Rightarrow 2^x = 2 \times 2 \times 2 \times 2 \times 2 \times 2$

    $\Rightarrow 2^x = 2^6$

    On comparing the powers of 2, we get x = 6

50. 121000

    Explanation:

    Let money in Hamid's bank account be Rs.x.

    Given, $\frac{7}{11}$ of all the money in Hamid's bank account = Rs.77000

    $\Rightarrow \quad \frac{7}{11} \times x = 77000$

    $\Rightarrow \quad x = \frac{77000 \times 11}{7}$

    $\Rightarrow \quad x = 11000 \times 11$

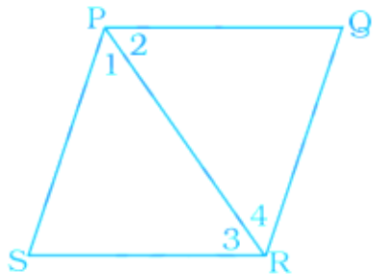
    $\Rightarrow$ x = 121000

    Hence, Hamid has Rs.121000 in his bank account

51. 1.5
    Explanation:
    If 16 shirts are to be made by cloth of 24 m
    Then, 1 shirt is to be made by cloth of = $\frac{24}{16} = \frac{3}{2}$ = 1.5 m
    Hence, 1.5m cloth is needed for making one shirt.

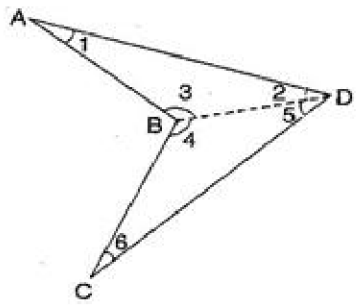
52. -1
    Explanation:
    -1

53. It is given that PQRS is a rhombus such that its diagonal PR is equal to its sides, i.e. PQ = QR = RS = PS = PR So, $\triangle$PRS and $\triangle$PQR are equilateral.



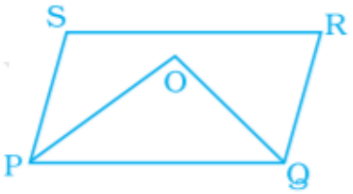
    $\angle S = \angle Q = 60^o$ [$\because$Each angle of an equilateral triangle is 60^o]
    and $\angle P = \angle 1 + \angle 2$
    $= 60^o + 60^o$
    $= 120^o$
    $\angle R = \angle P = 120^o$[Opposite angles of parallelogram]
    Hence $\angle S = \angle Q = 60^o$
    and $\angle P = \angle R = 120^o$

54. The sum of the measures of the angles of a convex quadrilateral is 360° as a convex quadrilateral is made of two triangles.
    This property also holds true for a quadrilateral which is not convex. This is because any quadrilateral can be divided into two triangles.
    Let ABCD is a non-convex quadrilateral and join BD, which also divides the quadrilateral into two triangles.



    Using angle sum property of triangle,
    In $\Delta ABD, \angle 1 + \angle 2 + \angle 3 = 180^\circ$
    In $\Delta BDC, \angle 4 + \angle 5 + \angle 6 = 180^\circ$
    Adding eq. (i) and (ii),
    $\angle 1 + \angle 2 + \angle 3 + \angle 4 + \angle 5 + \angle 6 = 360^\circ$
    $\Rightarrow \angle 1 + \angle 2 + (\angle 3 + \angle 4) + \angle 5 + \angle 6$
    $= 360^o$
    $\Rightarrow \angle A + \angle B + \angle C + \angle D = 360^\circ$
    Hence proved.

55. It is given that OP and OQ are the bisectors of ∠P and ∠Q respectively (see figure on the right),



so, ∠OPQ = $\frac{1}{2}$ ∠P and ∠OQP = $\frac{1}{2}$ ∠Q

In △POQ

∠OPQ + ∠PQO + ∠POQ = 180^o (Angle sum property)

i.e. $\frac{1}{2}$ ∠P + ∠POQ + $\frac{1}{2}$ ∠Q = 180^o

i.e. ∠POQ = 180^o - $\frac{1}{2}$ (∠P + ∠Q)[∵∠P + ∠Q = 180^o ,Co-interior angles]

= 180^o - $\frac{1}{2}$ × 180^o

= 90^o

56. Suppose that he bought x metres of trouser material.

∵ For every 2 metres of trouser material, he buys = 3 metres of shirt material

∴ For every x metres of trouser material he buys = $\frac{3x}{2}$ metres of shirt material

∴ Cost of trouser material = x × 90

= Rs 90x

Cost of shirt material = $\frac{3x}{2} \times 50$

= Rs 75x

Profit of 10% on trouser material

= Rs 90x × $\frac{10}{100}$ = Rs 9x

Profit of 12% on Shirt material

= 75x × $\frac{12}{100}$ = Rs 9x

∴ S.P. of trouser material

= Rs 90x + Rs 9x

= Rs 99x

S.P. of shirt material

= Rs 75x + Rs 9x

= RS 84x

∴ Total sale price

= S.P. of trouser material + S. P. of shirt material

= Rs 99x + Rs 84x

= Rs 183x

∵ His total sale is Rs 36,600

∴ 183x = 36,600

∴ x = $\frac{36600}{183}$ ... [Dividing both sides by 183]

∴ x = 200 hence, he bought 200 m of trouser material.

Verification,

$\frac{3x}{2} = \frac{3}{2} \times 200$ = 300

$\left(200 \times 90 + 200 \times 90\frac{10}{100}\right) + \left(300 \times 50 + 300 \times 50 \times \frac{12}{100}\right)$

= (18000 + 1800) + (15000 + 1800)

= 19800 + 16800

= 36600 hence, the result is verified.

57. Let speed of steamer in still water = x km/hr

Speed of stream = 2 km/hr

Speed downstream = (x + 2) km/hr

Speed upstream = (x – 2) km/hr

Distance covered in 7 hours while downstream = 7(x + 2)[∵Distance = speed x time]

Distance covered in 8 hours while upstream = 8(x - 2)

According to the condition,
7(x + 2) = 8(x - 2)
7x + 14 = 8x - 16
7x - 8x = -16 -14
-x = -30
$\Rightarrow$x = 30 km/hr
Total distance between two points = 7(x + 2) km
= 7(30 + 2) km
= 7 $\times$ 32 km
= 224 km

58. Let Anima's property be ₹ x.
We have given that property left for her daughter = ₹ $\frac{x}{2}$
Now, Property left for her son = ₹ $\frac{x}{3}$
Remaining property = $\left[x-\left(\frac{x}{2}+\frac{x}{3}\right)\right]$
$=x-\left(\frac{3x+2x}{6}\right)$
= $\frac{6x-5x}{6}$
=₹$\frac{x}{6}$
Since, the remaining property donated to an educational institute.
But donation property = ₹100000
$\therefore \quad \frac{x}{6}=100000$
$\Rightarrow$x = 600000
Hence, Anima had ₹ 600000

59. Given that two dice are thrown simultaneously then the number of possible out comes = 36
    i. 8 as sum (3,5) (5,3) (4,4), (6,2) (2,6)
    Total number of possible out comes = 5
    ∴ probability of getting 8 as the sum = 5 / 36.
    ii. A doublet of odd prime numbers are (1,1),(1,3),(1,5),(3,1),(3,3),(3,5),(5,1),(5,3),(5,5)
    Total number of possible out comes = 9
    ∴ probability of getting a doublet of odd prime numbers = 9 / 36 = 1 / 4.

60. Monthly income = ₹50000

Category	Money spent
Housing	$\frac{30}{100}\times 50000$ = 15000
Food (including eating out)	$\frac{20}{100}\times 50000$ = 10000
Car loan and maintenance	$\frac{25}{100}\times 50000$ = 12500
Utilities	$\frac{10}{100}\times 50000$ = 5000
Phone	$\frac{5}{100}\times 50000$ = 2500
Clothing	$\frac{5}{100}\times 50000$ = 2500
Entertainment	$\frac{5}{100}\times 50000$ = 2500

Solution

Class 08 - Science

SCIENCE REVISION WORKSHEET TERM 1

Section A

1. **(c)** Loosening the soil
   Explanation: Plough is a large agricultural implement which is used for plowing or tilling in the fields.
2. **(c)** pulse crop
   Explanation: Pulses are rich source of protein and also provide nutrients to the soil.
3. **(d)** Statement i) is correct but ii) is wrong.
   Explanation: Bacteria are unicellular prokaryotic organisms not contain well defined nucleus. Bacteria contain both cell membrane as well as cell wall.
4. **(a)** algae
   Explanation: Algae is autotrophic filamentous microbes living in water or moist soil. Algae contain chlorophyll that is necessary for photosynthesis.
5. **(a)** immunity
   Explanation: The property of our body to fight with disease causing pathogens is called immunity. Immunity protects us from spreading microbes inside the body. Immunity may be innate or acquired.
6. **(c)** Copper
   Explanation: Copper is highly ductile metal which is used in making electrical wires for household wiring and electric motors.
7. **(b)** its liquid nature
   Explanation: Mercury is used in thermometer due to its liquid nature and shiny color. It expands easily with an increase in temperature.
8. **(a)** natural material
   Explanation: Mineral is a naturally occurring material obtained from earth crust. Mineral contain one or more element.
9. **(d)** statement ii) is correct but i) is wrong
   Explanation: Coal tar is used for constructing road. It is a black thick fluid that is used as binder of the road. Paraffin wax is used to make shoe polish. They are obtain as by product in refining of petroleum.
10. **(b)** Carbon dioxide
    Explanation: Coal is mainly composed of carbon. When coal is burnt in the presence of air, carbon reacts with oxygen gas that is present in air (atmosphere) and produces carbon dioxide gas (CO_2).
11. **(d)** statement i) is correct but ii) is wrong
    Explanation: Kerosene is used as an illuminant in remote villages, where electricity is not available. Carbon black is used for production of polish and filler in tyres industry.
12. **(b)** bacteria and blue-green alga
    Explanation: Bacteria and blue-green algae are examples of prokaryotes. These organisms consist of the prokaryotic cells (no nuclear membrane, no well-defined nucleus, and no other cell organelles).
13. **(c)** statement ii) is correct but i) is wrong
    Explanation: Genes are located on chromosome inside the nucleus of the cell. Genes are responsible for transfer of character from one generation to the next generation.
14. **(a)** Virus
    Explanation: The Virus is not considered a cell. It is an exception to the cell theory and cannot survive on its own.
15. **(b)** Equal in all direction
    Explanation: The lateral pressure exerted by liquid at same height is equal in all direction and pressure increases with depth.

16. **(a)** 20 N
Explanation: Here, Mass of the body = 10kg
Acceleration= 2m/s sq
Force= Mass x Acceleration =10kg x 2m/s sq = 20N.

17. **(b)** Unbalanced force
Explanation: Forces that cause a change in the motion of an object arecalled unbalanced forces.Unbalanced force are not equal and opposite. Example: In a tug of war the team that pulls harder than the other team wins. This unbalanced force is required to overcome the gravitational force acting on the body.

18. **(a)** Drag
Explanation: The frictional force exerted by fluids is also called as drag. This kinds of frictional force can be overcome by changing the shape of the moving body in fluids. Such shape is called streamlined shape

19. **(d)** spread a carpet on the wooden surface.
Explanation: The power reduces the friction between the surface. So, the ball will go at a longer distance due to less friction.

20. **(c)** Air
Explanation: Gases offers less friction than liquid and solid because in air there in more intercellular space. Hence, air will offer less friction in comparison to kerosene, water, and ice.

Section B

21. Oil was poured on the top of the pickle as it acts as a preservative and prevents microbial growth thus protects the pickle from getting spoiled.
22. In 1857, Pasteur observed that fermentation is a biochemical process. Later it was discovered that all microorganisms are not harmful. In 1924 Fleming prepared antibiotic penicillin from a microorganisms called Penicillium notatum.
23. The organisms which lived in the sea got buried at the bottom of oceans. Over a period of time, their dead bodies were covered with sediments. Intense pressure and heat under the earth's layers transformed these organisms into petroleum. Petroleum occurs deep down in the earth between layers of non-porous rocks. Crude oil petroleum is formed by the decomposition of animal and plant remains over millions of years inside the earth. Natural gas the petroleum oil trapped under the rocks.
24. (i) The frictional force on an object in a fluid depends on its speed with respect to the fluid.
(ii) The frictional force also depends on the shape of the object and the nature of the fluid.
25. The marble will move the shortest distance on the layer of sand because the silk cloth and glass sheet will exert lesser maximum friction whereas the sand (being more rough) exert maximum friction against the motion.

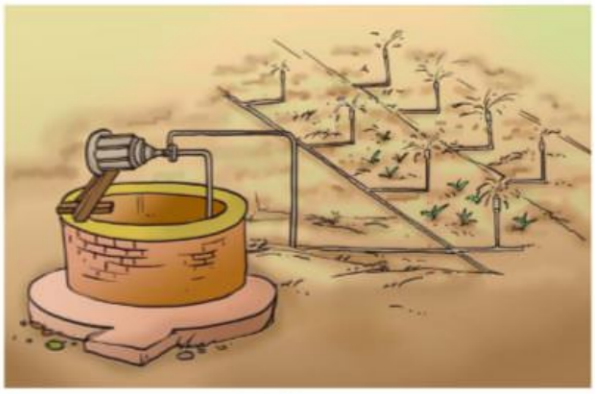
Section C

26. In a field other undesirable plants may grow naturally along with the crop. These undesirable plants are called weeds. We can adopt many ways to remove weeds and control their growth. Tilling before sowing of crops helps in uprooting and killing of weeds, which may then dry up and get mixed with the soil. The best time for the removal of weeds is before the produce flowers and seeds. The manual removal includes physical removal of weeds by uprooting or cutting them close to the ground, from time to time. This is done with the help of a khurpi or a harrow.
Weeds are also controlled by using certain chemical, called weedicides like 2.4, D. These are sprayed in the fields to kill the weeds. They do not damage the crops. The weedicides are diluted with water to the extent required and sprayed in the fields with a sprayer.

Spraying weedicide

27. The main modern methods of irrigation are as follows:

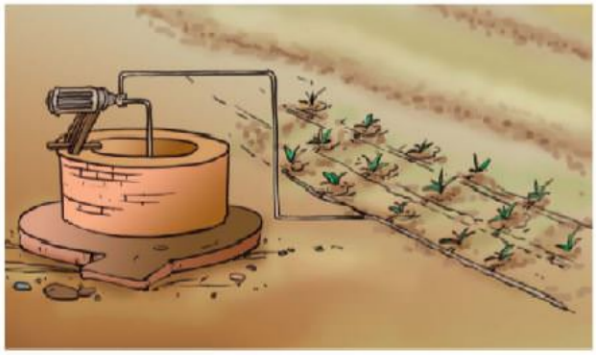
i. **Sprinkler System:** This system is more useful on the uneven land where sufficient water is not available. The perpendicular pipes having rotating nozzles on top are



Sprinkler system

Joined to the main pipeline at regular intervals. When water is allowed to flow through the main pipe under pressure with the help of a pump, it escapes from rotating nozzles. It gets sprinkles on the crop as if it is raining. It is very useful for sandy soil.

ii. **Drip System:** It this system the water falls drop by drop just at the position of the roots. So it is called drip system. It is the best technique for watering fruit plants, gardens and trees. The system provides water to plants drop by drop. Water is not wasted at all. It is a boon in regions where availability of water is poor.



Drip System

28. Prepare an electric circuit as shown in the figure. This circuit is used to test whether electricity can pass through a material or not. Repeat this activity with different materials shown in the table.

Observe and group these materials into good conductors and poor conductors:
Electrical Conductivity of Materials

S. No.	Materials	Good Conductor/Poor Conductor
1.	Iron rod/nail	Good conductor
2.	Sulphur	Poor conductor
3.	Coal piece	Poor conductor
4.	Copper wire	Good conductor

We see that iron nail and copper wire are made of metals and are good conductors. So, we can say that metals are good conductors.

29. When a magnesium ribbon is heated in presence of air on a burner flame, after some time it starts burning with a white flame and white powder is formed which is galled magnesium oxide.
$2Mg$ (Magnesium) + 0_2 (Oxygen) → $2MgO$ (Magnesium Oxide)
30. The following tips we must follow to save petrol/diesel/natural gas as below:
    i. Ensure correct air pressure in the tires.

ii. Ensure regular maintenance of the vehicle.
iii. Drive at a constant and moderate speed as far as possible.
iv. Switch off the engine at traffic lights or at a place where you have to wait.

31. When fruits detached from a tree fall down due to force of gravity, the objects interacting in this are fruits and earth.
    i. As soon as the fruits detached from a tree, the earth applies its force of gravity on fruit.
    ii. The force of gravity will act towards the centre of the fruit.
    iii. Hence, the pull of the earth causes fruits to fall down and interact with the earth.
32. The boy having a bicycle with old tires is more likely to skid on the oily road because the old tires will experience less friction in comparison to that of new tires. To move on the oily road needs a larger force of friction. But the old tyres have less friction which is not enough to move on the oily road. Thus, it is most likely to skip.
33. Cartilage is present in the joints of our body which helps in reducing friction and causes a smooth movement. As the age increases, the cartilage becomes less effective.
    Due to which the force of friction increases.
    As the force of friction increases means that smoothness of movement decreases. As a result, the movement of joint become difficult which leads to pain in joints.
34. When an object is at rest, it has better hold of the surface on which it is placed. In the static position the irregularities of the surface are interlocked properly due to which more force is required to overcome the friction. So it is not easy to move an object from its static position.

Section D

35. In sprinkler system of irrigation, a main pipe is laid in the fields to which perpendicular pipes are joined at regular intervals. When water from a tube-well is allowed to flow through the main pipeline under pressure with the help of a pump, it escapes from the rotating nozzles and gets sprinkled on the crops. This method of irrigation is more useful for the uneven land and sandy soil where sufficient water is not available.

36. Some microorganisms cause diseases in human beings, plants and animals, like some species of bacteria causes tuberculosis and typhoid, some species of virus causes common cold and influenza. Some microorganisms also cause spoilage of food, clothing and leather items. Thus, we consider some microorganisms are harmful.
    Diseases causing microorganisms can enter our body through the air we breathe, water we drink and the food we eat. They can also get transmitted by direct contact through an infected person or carried through an animal.
    Foot and mouth disease of cattle is caused by a virus.
    There are some microorganisms that cause disease in plants like wheat, sugarcane, rice, potato, orange, and apple. Like citrus canker disease caused by bacteria in plant, rust of wheat disease in wheat plant caused by fungi. These diseases reduce the yield of crops and can be controlled by using certain chemicals that kill microbes.
37. 1. $Zn + H_2SO_4 \rightarrow ZnSO_4 + H_2$
    2. $Fe + CuSO_4 \rightarrow FeSO_4 + Cu$
    3. $Cu + FeSO_4 \rightarrow$ no reaction
    4. $Mg + 2HCl \rightarrow MgCl_2 + H_2$
    5. $3Fe + 4H_2O \rightarrow Fe_3O_4 + 4H_2$
38. i. **Reaction with Air :**
    Metals are converted into their oxides by the action of oxygen present in air.

$4Na + O_2 \rightarrow 2Na_2O$ (sodium oxide)

ii. **Reaction with Hydrogen :**
Active metals like Na, K, Ca, Mg etc. react with hydrogen from their hydrides when heated at a temperature of 400°C and 200 atmospheric pressure.
$2Na + H_2 \rightarrow 2NaH$ (sodium hydride)
Ca + $H_2 \rightarrow$ 2CaO (calcium oxide)

iii. **Reaction with Water:** Different metals react with water at different temperatures to evolve out hydrogen. Some metals react with water at room temperature and some metals which are less active react with hot water while other metals react only with steam.
Sodium, calcium react with water at room temperature. Sodium burns in water to give sodium hydroxide.
$2Na + 2H_2O \rightarrow \underset{Sodium\ \ hydroxide}{2NaOH} + H_2 \downarrow$

iv. **Reaction with Acids :**
With hydrochloric Acid: Metals like sodium, magnesium, zinc, iron, react with hydrochloric acid to form metal chloride hydrogen gas.
$\mathrm{zn + 2HCl \rightarrow \underset{Zinc\ chloride}{znCl_2} + H_2 \downarrow}$

v. **Reaction with Sulphur :**
Sulphur reacts with metals and convert them into their sulphides.
Sodium is converted into white sodium sulphide.
2Na + S $\rightarrow$ Na_2S (Sodium sulphide)

39.

Constituents of Petroleum	**Uses**
1. LPG	Used in gas cylinders as cooking gas for home and industry.
2. Petrol	Motor fuel for cars, motorcycles and scooters, as fuel in aeroplanes and solvent for dry cleaning.
3. Kerosene	Fuel for stoves and lamp.
4. Diesel	Fuel for heavy motor vehicles like buses etc.
5. Lubricating oil	To lubricate various parts of machine and engines.
6. Paraffin wax	To make candles, Vaseline, ointments etc.
7. Bitumen	Used for road surfacing and making paints.

40. a. **Vacuole-** Blank looking structures in the cytoplasm are called vacuoles. They are quite big and single in a plant cell. Vacuoles in animal cell are quite smaller.
b. **Plastids**- small and scattered bodies in the cytoplasm are called plastids. They are of different colors.
c. **Chloroplasts**- Green colored plastids are called chloroplasts. They are green because they contain green pigment called chlorophyll. Chlorophyll in the chloroplasts are essential for photosynthesis.
d. **Chromosomes-** Thread-like structures in the nucleus is called chromosomes. These carry genes and help in the inheritance or transfer of characters from parents to their off-springs.

41. i. Take a clean toothpick, or a match stick with the tip broken
ii. Scrape inside of your cheek without hurting it.
iii. Place it in a drop of water on a glass slide.
iv. Add a drop of iodine and place a coverslip on it.
v. Alternatively, add 1-2 drops of methylene blue solution.
vi. Observe it under the microscope.
Conclusion- We can observe the cell membrane, the cytoplasm and nucleus. This indicates that the cell wall is absent in animals.

42. When a man stands on a cushion then his two feet are in contact with the cushion. Due to this his body weight falls on a small area. On the other hand when a man lies on the cushion, his whole body comes in contact with the cushion. His weight falls over the large area because of which the depression in the cushion is less than when he stands on it.

43. Take a ball and allow it to roll on the cemented surface. Measure the distance covered on the surface by the measuring tape. Repeat this activity on a kachha floor also with same force and measure the distance covered by the ball. You observe that ball covers a larger distance on the cemented floor because it is smoother and therefore frictional force between the cemented floor and the ball is less.
We can conclude that friction depends upon roughness or smoothness of the surfaces in contact. Smooth surfaces offer lesser friction than rough surfaces.
44. It sometimes desirable to increase friction to avoid slipping. There are two methods to increase friction:
    a. By making the surface rough
    b. by increasing the mass of the object, that is moving.

    For example, by using brakes pads in the system of bicycles and automobiles. When we are riding a bicycle, the brakes pads do not touch the wheels. But when we press the brake lever, these pads arrest the motion of the ring due to friction. Spikes are provided in soles of shoes used by football players and athletes to increase friction so that they get a firm grip on the ground.
45. Place wooden block on the smooth surface. Fix spring balance to hook and try to slide wooden block by pulling spring balance. Read the observation shown by the spring balance.
Now place the 50g of weight on the wooden block and repeat the same activity. Record the force of friction. Repeat this activity with different weights and record the observations.
It can be easily understood that as the weight of wooden block increases, the magnitude of frictional force increases.
46.

Static friction	**Sliding friction**	**Rolling friction**
1. It is the friction between two surfaces when the object starts moving from state of rest.	It is the friction between two surfaces when the object is sliding over another object or surface.	It is the friction between two surfaces when one object is rolling over another object or surface.
2. It is the force required to start moving the object.	It is the force required to retain the sliding motion at the same speed.	It is the force required to retain the rolling motion at the same speed.
3. It is the maximum force of friction present between the two surfaces.	Sliding friction is less than static friction.	Rolling friction is much less than the sliding friction.
4. Strong interlocking of the contact point.	Interlocking is not very strong	Interlocking is very weak.

Section E

47. Fill in the blanks:
    a) 1. Agricultural
    b) 1. Float
    c) 1. Viruses
    d) 1. Animal
    e) 1. bromine
    f) 1. basic
    g) 1. Burning
    h) 1. fossil
    i) 1. Robert Hooke
    j) 1. 1665
    k) 1. force
    l) 1. Pressure
    m) 1. Relative motion
    n) 1. Opposes

Solution

Class 08 - Social Science

SOCIAL SCIENCE REVISION WORKSHEET TERM 1

Section A

1. **(c)** Warren Hasting
   Explanation: When Warren Hastings went back to England in 1785, Edmund Burke accused him of being personally responsible for the misgovernment of Bengal. This led to an impeachment proceeding in the British Parliament that lasted seven years.

   OR

   (d) Only A
   Explanation: After the defeat at Plassey, Sirajuddaulh was assassinated and Mir Jafar was made the nawab.
2. **(d)** 1772
   Explanation: From 1772 a new system of justice was established. Each district was to have two courts - a criminal court (Faujdari Adalat) and a civil court (Diwani Adalat). Maulvis and Hindu pandits interpreted Indian laws for the European district collectors who presided over civil courts. The criminal courts were still under a qazi and a mufti but under the supervision of the collectors.
3. **(c)** Only C
   Explanation: The Baigas were hunters and gatherers who could only live on the forest produce. They claimed to be harbingers of the human race and hence were reluctant to work for others.
4. **(c)** Only goats
   Explanation: The Bakarwals of Kashmir are the pastoralists of Jammu and Kashmir and they herd goat and sheep.
5. **(d)** Savage
   Explanation: The British described the tribal people as Wild and Savage.
6. **(b)** Tantia Tope
   Explanation: Tantiya Tope was Maratha Brahmin in the service of former Peshwa Baji Rao II and his adopted son Nana Saheb. He was an intimate friend and the commander in chief of Nana Saheb's rebel forces and was present at Nana Saheb's massacre of the British colony in Kanpur.
7. **(b)** Foreigners
   Explanation: Firangi means foreigners particularly, British or white people. During the British Rule, the Indians called the white people firangi.
8. **(d)** Sunlight
   Explanation: Resources that are found everywhere are ubiquitous. But those which are found only in certain places are localised. Hence, Sunlight is a ubiquitous resource.
9. **(b)** resource conservation
   Explanation: If we are not careful then even renewable resources can become very scarce and the non-renewable ones can definitely get exhausted. Hence, using resources carefully and giving them time to get renewed is called resource conservation.
10. **(d)** Water
    Explanation: Water is a vital renewable natural resource. Three-fourths of the earth’s surface is covered with water. Humans use huge amounts of water not only for drinking and washing but also in the process of production. Water for agriculture, industries, generating electricity.
11. **(d)** Decline in the productivity of cultivated land
    Explanation: Land degradation is the process of deterioration of soil or loss of fertility of the soil.
12. **(a)** Mulching
    Explanation: Mulching is the methods of soil conservation.

13. **(c)** Thermal power
Explanation: Electricity from coal is called thermal power.

14. **(a)** Wind energy
Explanation: In modern time wind mills, the high speed
winds rotate the wind mill which is connected to a generator to produce electricity.

15. **(a)** 1919
Explanation: The Rowlatt Act allowed the British government to imprison people without due trial. Indian nationalists including Mahatma Gandhi were vehement in their opposition to the Rowlatt bills. Despite a large number of protests, the Rowlatt Act came into effect on 10 March 1919.

OR

(a) British
Explanation: British introduced the rule of law in India because colonial law was arbitrary, and the Indian nationalists played a prominent role in the development of the legal sphere in British India.

16. **(c)** Different Languages
Explanation: In the social environment groups of people or communities may have the experience of being excluded. Their marginalization can be because they speak a different language, follow different customs, or belong to a different religious group from the majority community.

OR

(b) Both The Sedition Act of 1870 to The Rowlatt Act of 1919
Explanation: Historians have disputed this claim on several grounds, two of which include: first that colonial law was arbitrary, and second that the Indian nationalists played a prominent role in the development of the legal sphere in British India. One example of the arbitrariness that continued to exist as part of British law is the Sedition Act of 1870.
Another example of British arbitrariness was the Rowlatt Act which allowed the British government to imprison people without due trial.

17. **(c)** 25
Explanation: Currently, there are 25 High Courts.

OR

(a) one
Explanation: The police officer carrying out the arrest of the arrestee shall prepare a memo of arrest at the time of arrest and such memo shall be attested by at least one witness who may either be a member of the family of the arrestee or a respectable person of the locality from where the arrest is made. It shall also be countersigned by the arrestee and shall contain the time and date of arrest.

18. **(a)** Acquit
Explanation: Acquit: This refers to the court declaring that a person is not guilty of the crime which he/she was tried for by the court.

OR

(d) D.K. Basu Guidelines
Explanation: D. K. Basu Guidelines are the specific requirements and procedures laid down by the Supreme Court of India for the police and other agencies to follow during the arrest, detention, and interrogation of any person.

19. **(d)** Constitution
Explanation: Constitution

OR

(b) Cross examination
Explanation: A function of Defence lawyer is to cross-examine all the prosecution witnesses.

20. **(b)** FIR
Explanation: FIR

OR

(b) Statement of Witness

Explanation: An investigation includes the statement of Witness.

Section B

21. The mineral deposits in North America are found in three zones: the Canadian region in the north of the Great Lakes, the Appalachian region and the Rocky Mountains in the West. Iron ore, nickel, gold, uranium and copper are mined in the Canadian Shield Region, coal in the Appalachian region. Western Cordilleras have vast deposits of copper, lead, zinc, gold and silver.
22. i. Use of biogas as cooking fuel.
    ii. For cooking, use of pressure cookers.
    iii. Switch off the light when not in use.
    iv. Using solar energy.
    v. Drying clothes in sunlight instead of electric dryers.
23. The Rowlatt Act came into effect on 10 March, 1919. This Act allowed the British government to imprison people without due trial. Indian nationalists began to protest this arbitrary Act. In Punjab, the protest was more intensely carried out. On April 10, two leaders of the movement. Dr. Satyapal and Dr. Saifuddin Kitchlew were arrested. To protest these arrests, a public meeting was held on 13 April at Jallianwala Bagh in Amritsar. General Dyer entered the park with his troops and after closing the only exit ordered them to fire on the gathering. As a result several hundreds of people were killed and many more were wounded.
24. The Hindu Succession (Amendment) Act, 2005 was enacted to remove gender discriminatory provisions in the Hindu Succession Act, 1956. According to the Hindu Succession Amendment Act, 2005 sons, daughters and their mothers can get an equal share of family property after the death of their father.
25. PIL has been devised to facilitate justice for all. It allows any individual or organisation to file a PIL in the High Court or in the Supreme Court on behalf of those whose rights were being violated. Its legal process is greatly simplified. By letter or telegram addressed to the Supreme Court or the High Court can be treated as a PIL.
26. In principle, every citizen has a right to justice through the courts. Here, it is worth mentioning that the courts play a very significant role in protecting our Fundamental Rights. If any citizen finds that their Fundamental Rights are violated, they can approach the court. But things are not the same in reality. Access to courts has always been tough for the poor. These people do not dare to go to the court because they know that the legal procedures are very lengthy and complicated and involve a lot of money.

Section C

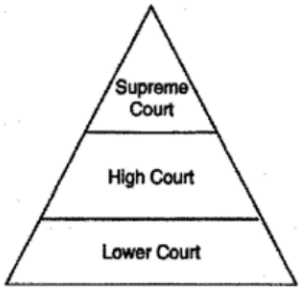
27.

Potential resources	**Actual resources**
These resources could be used in the future.	These resources are being used in present.
These resources are those resources whose entire quantity or utility may not be known.	These resources are those resources whose entire quantity are known.
As technology improves their use in future is possible.	Available technology is used to use these resources.
The Uranium found in Ladakh is an example of potential resources.	Rich deposits of coal in the Ruhr region of Germany is an example of actual resources.

28. Environment is under serious threat as a result of human activities. The major threats to the environment worldwide are mentioned below:
    i. Degradation of Land.
    ii. Increase in pollution.
    iii. Landslides.
    iv. Soil erosion.
    v. Desertification i.e Expansion of Deserts.
    vi. Overgrazing by cattle.
    vii. Change in landforms.
    viii. Activities of Construction.
    ix. Expansion of agriculture.
    x. Over-exploitation of natural resources.

xi. Climate change and global warming.

29. The land use pattern is determined by certain physical factors of the country such as topography, climate, physical feature, types of rocks, private and community land, time, parent rock, flora, fauna, and micro-organism, and soil types. The availability of geographical area determines its uses by the country. In India, we have various forms of land like plains, plateaus, mountains, etc., which are kept in mind before planning the land use pattern.
30. Ways to conserve water are mentioned below:
    i. Efficient use of water.
    ii. Rainwater harvesting: It is a process of storing rainwater in vessels of a big surface area.
    iii. Turn off the tap while brushing your teeth and washing your hands.
    iv. Canals for irrigation should be checked for water losses through seepage and promoting sprinkler irrigation to check evaporation and seepage.
    v. Preserving water bodies from factory wastes.
31. A.Minerals are important in many industries. B.Minerals used in gems are usually very hard. These are then set in varying styles of jewellery.
    C.Iron and copper are metals used in almost everything. Copper is present in everything from coins to pipes and electricity wires.
    D.Silicon, obtained from the mineral quartz, is the base of computer industry.
    E.Aluminium, obtained from bauxite ore, and its alloys are used in aeroplanes due to their light weight. Aluminium is also used in kitchen cookware.
32. One must conclude after examining the functions of the Indian Judiciary that it plays a critical role in its democracy. It protects the citizens of the country against any possible misuse of authority by the Legislature and Executive. Moreover, a citizen can go to the Judiciary directly to seek justice in case his/her Fundamental Rights have been violated. From this, I have learned the value and importance of the Indian Judiciary in strengthening the country's democracy besides my personal well-being.
33. i. **To appeal:** Refers to a petition filed before a higher court to hear a case that has already been decided by a lower court.
    ii. **Compensation:** Refers to money given to make amends for an injury or a loss.
    iii. **Eviction:** Refers to the removal of persons from land or homes that they are currently living in.
    iv. **Violation:** Refers both to the act of breaking a law as well as to the breach or infringement of Fundamental Rights.
34. There are three different levels of courts in India. At the lower level, we have subordinate or district courts. These courts hear many kinds of case. At the state level, we have High Courts. There are 21 High Courts in our country. The High Court is the highest authority in a state. At the top in the Supreme Court. It is the foremost judicial in our country. It is located in New Delhi and is presided over by the Chief Justice of India. Thus, the structure of the courts from the lower to the highest level is such that it resembles a pyramid.



35. The importance of the Public Prosecutor is as:
    i. The role of the Public Prosecutor begins once the police have conducted the investigation and filed the charge sheet in the court.
    ii. He represents the interests of the State and conducts the prosecution on behalf of the State.
    iii. He has to do his duty faithfully and must present full materials, facts, witnesses and evidence before the court to enable the court to decide the case.
36. The Supreme Court of India has issued specific requirements and procedures that the police and other agencies have to follow for the arrest, detention and interrogation of any person. These are known as the D.K. Basu Guidelines which include the following points.

(a)The police officials who carry out the arrest or interrogation should wear clear, accurate and visible identification and name tags with their designations.
(b)A memo of arrest should be prepared at the time of arrest and should include the time and date of arrest. It should also be attested by at least one witness who could include a family member of the person arrested. The arrest memo should be countersigned by the person arrested.
(c) The person arrested, detained or being interrogated has a right to inform a relative, friend or well- wisher.
(d) When a friend or relative lives outside the district, the time, place of arrest and venue of custody must be notified by police within 8 to 12 hours after arrest.

37. The following Fundamental Rights have been guaranteed by Article 22 of the Constitution and Criminal law to every arrested person.
(a)The Right to be informed at the time of arrest of the offence for which the person is being arrested.
(b)The Right to be presented before a magistrate within 24 hours of arrest.
(c)The Right not to be ill-treated or tortured during arrest or in custody.
(d)Confessions made in police custody cannot be used as evidence against the accused.
(e) A boy under 15 years of age and women cannot be called to the police station only for questioning.

Section D

38. The conflict between the Bengal nawabs and the East India Company intensified in the early 18th century. The nawabs of Bengal (Murshid Quli Khan, Alivardi Khan and Sirajuddaulah) were strong rulers.
    i. They denied the Company any right to mint coins and stopped it from extending its fortifications.
    ii. They refused to grant the company concessions and demanded large tributes to the Company's right to trade.
    iii. Accusing the company of deceit, they claimed that the Company was depriving the Bengal government of huge amounts of revenue and undermining the authority of Nawabs.
    iv. The Company on its part said that the unjust demands of the local officials were ruining their trade. To expand their trade, they had to rebuild their forts.
39. A.Lord Hasting, who was the Governor – general of India from 1813 to 1823, introduced a new policy of ‘paramount’.
B.Now the company claimed that its authority was paramount or supreme, hence its power was greater than that of Indian states.
C.In order to protect its interests, it was justified in annexing or annex any Indian kingdom. However, this process did not go unchallenged.
D.For example, when the British tried to annex small state of Kitoor (in Karanataka today), Rani Channamma took to arms and led an anti – British resistance movement. She was arrested in 1823 and died in prison in 1829. But this resistance movement did not stop.
E.Chawkidar of Sangoli in Kitoor. With popular support, he destroyed many British camps and records. He was also caught and hanged by the British in 1830.
40. Birsa talked of a golden age in the past - a Satyug when the Mundas lived a good life, constructed embankments, tapped natural springs, planted trees and practiced cultivation to earn their living. He visualised an age when the Mundas would again be free of the oppression of dikus and their ancestral. He talked of an age in which the tribals would not kill their brethren and relatives. His golden age consisted of a reformed tribals society in which there was no place for vices like liquor, clean their village and stop believing in witchcraft and sorcery or the influence of evil outsides like Christian missionaries, landlords, moneylenders, traders and Europeans. The vision appealed to the people of the region because they wanted to lead a happy and free life.

OR

Tribal people were involved in many different types of activities:
(a) Some tribal people practiced jhum cultivation also known as shifting cultivation. This was done on small cultivation. This was done on small patches of land, mostly in forests. The cultivators cleared off small patches of land. They then burnt the vegetation and spread the ash form the firing, which contained potash to fertilise the soil. They used equipments like axe and hoe for preparing the soil for cultivation. Then they scattered the seeds on the field. Once the crop was ready and harvested, they moved to another field. Shifting cultivators were found in the hilly and forested tracts of north – east and central India.
(b) Some tribal groups were engaged in hunting animals and gathering forest produce, hence known as ‘hunter – gatherers.’ They saw forests as essential for survival. The khonds were such a community living in

the forests of Orissa. They regularly went out on collective hunts and then divided the meat amongst themselves. They ate fruits and roots and cooked food with the oil they extracted from the seeds of the sal and mahua. The got rice and other grains in return for their valuable forests produce. Sometimes they did odd jobs in the villages like carrying loads, etc.

(c) Some tribal groups lived by herding and rearing animals. They were pastoralist who moved with their herds of cattle or sheep according to the seasons. For examples, the Van Gujjars of Punjab hills, and the Labadis of Andhra Pradesh were cattle herders, the Gaddis of kulu were shepherds and the Bakarwals of Kashmir reared goats.

(d) Some tribal community took to settled cultivation. They cultivated their field in one place year after year, instead of moving from place to place. They began to use the plough and gradually got rights over the land they lived on.

41. Tribal groups often needed to buy and sell in order to be able to get the goods that were not produced within the locality. This led to their dependence on traders and moneylenders. Traders came around with things for sale. They sold the goods at high prices. Moneylenders used to give loans. The money lenders would charge a high rate of interest. The traders and moneylenders would exploit the tribals by selling goods at high rates and demanding high interest on the loans. For meeting their cash needs they would take loans from the moneylenders who charge high-interest rates. Hence the tribals considered the money lenders as evil and the main cause for their miserable state.

OR

The problems did shifting cultivators face under British rule were:

i. The life of shifting cultivators was directly connected to the forest. So, when the British brought changes in forest law, their life was badly affected.
ii. The British extended their control over all forests and declared that forests were state property.
iii. Some forests were classified as a reserved forest for their produced timber which the British wanted. In these forests, people were not allowed to move freely and the Jhum cultivator. Many cultivators had to move to other areas in search of work and livelihood.
iv. after this, forest villages were established around the Forest Department.

42. A.Birsa was born in the mid – 1870s in a family of Mundas, a tribal group that lived in Chottanagpur. He grew up around the forests of Bohanda, grazing sheep, playing flute and dancing in the local akharas.

B.As an adolescent Birsa heard tales of the Munda upspring of the past and saw sirdas (leaders) of the community urging the people to revolt.

C.Birsa took great interest on the sermons of missionaries.

D.He also enjoyed the company of a prominent Vaishnav preacher.He decided to reform tribal society.

E.He urged the mundas to give up all their bad practice like drinking liquor, etc.He also urged his followers to restore their glories past. He talked of a golden age in the past – when Mundas lived a very good life. They did not kill their brethren and relatives.

F.The British official got terrified to visualize the political aims of Birsa Munda. As the movement spread, the government arrested him in 1895, convicted him on the charges of rioting.He was also jailed him for two years. In 1900, he died of cholera and the movement faded out. But it proved signification in the long run.

43. Reasons for their discontentment:

(a) The Indian sepoys were given poor salaries and allowances.

(b) The conditions of service also made them unhappy.

(c) Some of the new rules violated their religious sentiments and beliefs.

(d) Those were the days when many people in the country believed that if they crossed the sea they would lose their religion and caste. So, when in 1824 the sepoys were told to go to Burma by the sea route to fight for the company, they refused to follow this order. As a result, they were given severe punishment.

(e)In 1856, the company passed a new law which stated that every new person who took up employment in the company's army has to agree to serve overseas if required.

44. Wind power is the fastest-growing energy source in the world. A wind turbine works the opposite of a fan. Instead of using electricity to make wind, a turbine uses the wind to produce electricity. The wind turns the blades, which spin a shaft, which connects to a generator and produces electricity. The electricity is sent through transmission and distribution lines to a substation, then on to homes, business houses and schools. Wind turbines do not have any adverse effect on the environment. That's why wind power is gaining

popularity. It is also becoming economically competitive with more conventional power sources-a fact that's greatly improving its prospects as a viable energy source.

45. Using resources carefully and giving them time to get renewed is called resource conservation. Balancing the need to use resources and also conserve them for the future is called sustainable development. There are many ways of conserving resources. Each person can contribute by reducing consumption, recycling and reusing thing. Ultimately it makes a difference because all our lives are linked.
    Most of the natural resources are limited in stock. Even some of the renewable resources can become scarce if they are not used judiciously. Scientists predict that coal and petroleum are going to be exhausted in the near future. Hence, it is important to conserve natural resources. Conservation not only secures our life but also the lives of future generations.
46. A.Forests and wildlife are an important resource. Climate change and human interferences in the animal kingdom can cause loss of natural habitat for plants and animals.Certain species have become endangered and many have become extinct now. Poaching incidents contribute to their extinction.
    B.
    a.Plants and animals are an important part of the ecosystem. Plants provide food, oxygen and shelter to humans and animals. Animals provide us important products such as milk, meat, honey, etc. There exists a balance in the environment if we do not disturb the natural number of species living on the earth.
    b.A single extinction can affect the ecosystem badly. So animals and plants obviously need to be conserved.
    C.
    a.The government has introduced national parks, wildlife sanctuaries and biosphere reserves for this purpose.
    b.Poaching should be severely dealt with. Indiscriminate killings need to be discouraged.
    c.Social awareness must be created about importance of trees, social forestry.
    d.Students should be involved in vanamahotsavas at regional and community levels.
47. We can conserve natural vegetation and wildlife in the following ways:
    i. Natural parks and wildlife, national parks, wildlife sanctuaries, and biosphere reserves are made to protect our natural flora and fauna.
    ii. Conservation of creeks, lakes, and wetlands is also necessary to save the precious resource from depletion.
    iii. The best way to conserve the different species of animals and prevent poaching is by educating people about how important animals are to our ecosystem.
    iv. Creation of national parks and biosphere reserves is another measure to protect our natural vegetation and wildlife.
    v. Encouragement of awareness programmes like social forestry and Vanmahotasava.
    vi. School children should be encouraged to bird watch and visit natural camps to appreciate the habitat of varied species.
48. Differences between the CITES and vegetation are:
    i. Vegetation: The vegetation in the world are grouped as forests, grasslands, scrubs and tundra. In areas of heavy rain, huge trees can be found. Forests are abundant in areas of heavy rainfall. With moisture and rainfall the density of forests declines.
    ii. CITES (The Convention on International Trade in Endangered Species of Wild Fauna and Flora): It is an international agreement between governments. It aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival. Roughly 5,000 species of animals and 28,000 species of plants are protected. Bears, dolphins, cacti, corals, orchids and aloes are some examples.
49. Minerals generally occur in rocks of these forms:
    i. In igneous and metamorphic rocks, minerals occur in the veins and the lodes. Major metallic minerals like tin, copper, zinc, lead, etc. are obtained from these veins and lodes.
    ii. In sedimentary rocks, minerals occur in layers. Coal and some forms of iron ore are found like this. Minerals such as gypsum, potash, salt and sodium salt are found as a result of evaporation, especially in arid regions.
    iii. In the decomposed surface rocks (a residual mass of weathered material), bauxite is formed.
    iv. In alluvial deposits or placer deposits, minerals which are not corroded by water are found. Such as gold, silver, tin and platinum.

v. In the ocean floor, vast quantities of manganese nodules are found. Common salt, magnesium and bromine are largely derived from ocean waters.

50. Laws are required to:
    i. Prevent people from several unjust social practices.
    ii. Prohibit the practice of untouchability which was the cause of suffering for millions of people.
    iii. Ensure equality among the citizens of India.
    iv. Provide systems to regulate activities, to derive the maximum benefit from all types of resources.

    The parliament plays an important role in making laws. For this, it has to be sensitive to the needs of the people.
    For example: To protect women from domestic injury and violence by husband, the Parliament enacted a law in 2006, called the Protection of women from Domestic Violence Act 2005.

    OR

    The Rowlatt Act came into effect on 10th March 1919. This Act allowed the British Government to imprison Indians without due trial. The Act was another example of British arbitrariness. Indian nationalists, including Mahatma Gandhi, vehemently opposed this unjust act. In Punjab especially, the protests were intense and two leaders of the movement, Dr. Satyapal and Dr. Saifuddin Kitchlew, were arrested. A public meeting was held on 13th April at Jallianwala Bagh the same year to protest these arrests. However, the meeting ended tragically as the peaceful gathering was fired at by the British General Dyer.
51. The Rowlatt Act, an arbitrary law allowed the British government to imprison people without due trial.
    Example: The Rowlatt Act came into effect on 10 March 1919. In Punjab, protests against this act continued quite actively and on April 10, two leaders of the movement, Dr. Satyapal, and Dr. Saifuddin Kithclew were arrested. To protest their arrests, a public meeting was held on 13 April at Jallianwala Bagh in Amritsar. General Dyer entered the park with his troops. They closed the only exit and without giving any warning General Dyer ordered the troops to fire. Several hundreds of people died in this gunfire and many more were wounded including women and children.
52. The functions of Judiciary are:
    i. **Settlement of Disputes:** The Judiciary provides a mechanism for resolving disputes between citizens, between citizens and the government, between two State government and between the Centre and State Government.
    ii. **Judicial Review:** The Judiciary is the final interpreter of the Constitution, i.e. it has the power to modify or cancel a particular law if it finds that it violates the basic structure of the Constitution which is based on fairness and equity. This is termed as a judicial review.
    iii. **Upholding the Law and Enforcing Fundamental Rights:** Every citizen of India can approach the Supreme Court or High court directly if he/she believes his/her Fundamental Rights have been violated.
53. According to Article 22 of the Indian Constitution, every citizen has the Fundamental Right to be defended by a lawyer. This means that every person, even if he/she is accused of a crime, is entitled to present his/her case in the court. This shows that our courts give an impartial judgement. They give the accused every opportunity to prove his/her innocence. The Judiciary does not jump to the conclusion that the accused is the culprit. The judge remains impartial and gives judgement solely on the basis of evidence produced in the court. From this, I have also learnt the importance of being impartial and arriving at a decision only after examining both sides of the matter.

Section E

54. Fill in the blanks:
    a) 1. Awadh
    b) 1. Mir Jafar
    c) 1. Fallow
    d) 1. British, Peasant
    e) 1. Cocoons
    f) 1. Igneous, Metamorphic
    g) 1. Arbitrary