

NAAHAR PUBLIC SCHOOL (CBSE) SENIOR SECONDARY, VILLUPURAM
ACADEMIC YEAR (2022-2023)
BYJU'S MOCK TEST

DATE: 17.12.2022

CLASS: VII
SUB: SCIENCE

MARKS: 480

DUR: 3 Hrs

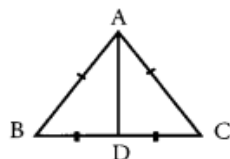
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1. Which one of the following is a step in the formation of soil?
(a) Earthquakes or volcanic eruptions (b) Weathering of rocks
(c) Addition of humus (d) All are involved in the formation of soil
 2. In which horizon of soil minerals are found?
(a) A (b) B (c) C (d) None of these
 3. Which physical property of soil is important to us?
(a) Texture (b) Water holding capacity (c) Both of these (d) None of these
 4. Which of the following type of soil will form a colloidal solution when suspended in water?
(a) Clay (b) Silt (c) Sand (d) Gravel
 5. Which factor influences soil formation?
(a) Climate (b) Vegetation (c) Parent rock (d) All of these
 6. The proportion of sand, silt and clay in a soil sample determines
(a) structure (b) texture (c) nutrient potential (d) fertility level
 7. The microorganisms present in the soil require moisture (water) and nutrients for growth and survival. Choose from the options below the habitat (place) where the soil has plenty of water and nutrients.
(a) Desert (b) Forest (c) Open field (d) Cricket ground
 8. Availability of water and minerals in the soil for maximum absorption by roots is in the:
(a) B-horizon (b) C-horizon (c) A-horizon (d) Surface of soil
 9. Soil conservation measures are mainly aimed at protecting which of the following?
(a) Plants (b) Topsoil (c) Sub soil (d) Soil organisms
 10. Read the following statements with reference to soil:
(i) Weathering is a very fast process of soil formation.
(ii) Percolation of water is faster in sandy soils.
(iii) Loamy soil contains only sand and clay.
(iv) Top soil contains the maximum amount of humus.
Choose the correct statements from the above.
(a) (ii) and (iv) (b) (i) and (iii) (c) (ii) and (iii) (d) (i) and (ii)
 11. Soil is the substance which makes up the _____ of the earth.
(a) rock (b) layers (c) surface (d) all of the above
 12. Which one of the following is a step in the formation of soil?
(a) Earthquakes or volcanic eruptions (b) Weathering of rocks
(c) Addition of humus (d) All of these
 13. Which factor influences soil formation?
(a) Climate (b) Vegetation (c) Microorganism (d) All of these
 14. Which of the following does not cause soil erosion?
(a) Deforestation (b) Terrace farming (c) Floods (d) Overgrazing
 15. Soil conservation measures are mainly aimed at protecting
(a) plants (b) top soil (c) sub soil (d) soil organisms
 16. In which horizon of soil minerals are found?
(a) A (b) B (c) C (d) None
 17. The best top soil for growing plants is
(a) sandy soil (b) loamy soil (c) clayey soil (d) all of these
 18. The mixture of rock particles and humus is called
(a) soil (b) weathering (c) silt (d) gravel
 19. One of the following is not a type of soil. This one is
(a) loamy soil (b) silty soil (c) clayey soil (d) sandy soil
 20. Which of the following has smallest size soil particles?
(a) Gravel (b) Silt (c) Clay (d) Sand

21. Cotton grows well in
(a) black soil (b) laterite soil (c) red soil (d) loamy soil
22. In which of the following humus is present in reasonable amount?
(a) A-horizon (b) B-horizon (c) C-horizon (d) Bedrock
23. Which of the following cannot prevent soil erosion?
(a) Reforestation (b) Deforestation (c) Silviculture (d) Plantation
24. The topmost layer of soil is known as
(a) top soil (b) sandy soil (c) sub soil (d) bed soil
25. Sandy soils are found in
(a) hilly areas (b) tropical region (c) deserts (d) polar region
26. In desert plants, the leaves are reduced to
(a) thorns. (b) tendrils. (c) spines. (d) bristles.
27. Urea rich blood is filtered in kidney from
(a) vein. (b) capillary. (c) artery. (d) blood vessel.
28. The blood after filtrations in the glomerulus is carried away by
(a) artery. (b) arteriole. (c) vein. (d) venue.
29. The blood vessel which carries impure blood, i.e., blood rich in carbon dioxide to lungs is
(a) pulmonary artery. (b) pulmonary vein. (c) aorta. (d) capillary.
30. Haemoglobin which binds with oxygen and transports it to all parts of the body is coloured
(a) green. (b) blue. (c) yellow. (d) red.
31. Double blood circulation occurs in
(a) reptiles. (b) fishes. (c) mammals (d) amphibians.
32. The type of the blood cell which prevents the flow of blood after an injury is
(a) WBC. (b) RBC. (c) haemolymph. (d) platelets.
33. A natural system of human body to maintain its body temperature is through
(a) sweating. (b) eating. (c) sleeping. (d) running.
34. The body waste dissolved in water is mainly removed as
(a) sweat. (b) urine. (c) blood. (d) plasma.
35. The movement of oxygenated blood from the left auricle to left ventricle and then through the aorta to all parts of the body is called
(a) extracellular circulation. (b) pulmonary circulation.
(c) systemic circulation. (d) intracellular circulation.
36. The movement of oxygenated blood from the left auricle to left ventricle and then through the aorta to all parts of the body is called
(a) extracellular circulation. (b) pulmonary circulation.
(c) systemic circulation. (d) intracellular circulation.
37. The main medium for the transport of excretory products in the body is
(a) blood. (b) plasma. (c) serum. (d) urine.
38. The primary organ which helps in absorption of water from the soil is
(a) root hair. (b) root cap. (c) stem hair (d) root nodules
39. Amongst the given vegetables, the process of transpiration occurs in
(a) tomato. (b) potato. (c) carrot. (d) spinach
40. Birds excrete waste in form of
(a) urea. (b) uric acid. (c) urine. (d) ammonia.
41. Stomata open and close due to
(a) presence of valves. (b) hormonal control.
(c) turgor pressure of guard cells. (d) concentration gradient of the gases.
42. The food is transported in the phloem in the form of
(a) glucose. (b) sucrose. (c) amino acid. (d) fats.
43. Homeostasis is a complex process, which is controlled by
(a) platelets. (b) RBC. (c) WBC. (d) haemolymph.
44. Pure oxygenated blood is pumped from the
(a) left atrium (b) right ventricle. (c) right atrium. (d) left ventricle.

45. The average pulse rate of a human being is
 (a) 70 beats per minute. (b) 72 beats per minutes.
 (c) 82 beats per minutes (d) 92 beats per minute.
46. A rhythmic contraction and relaxation of the cardiac muscles, is known as
 (a) breathing. (b) heart stroke. (c) heartbeat. (d) pulse rate.
47. The appearance of white patches on the coloured clothes, during hot summer months are due to presence of
 (a) salt in sweat. (b) sugar in sweat. (c) water in sweat. (d) amino acids in sweat.
48. In desert plants, photosynthesis is a function of
 (a) stem. (b) leaves. (c) roots. (d) fruits.
49. The main organ of excretory system in human body is
 (A) lungs. (B) heart. (C) liver. (D) kidney.
50. Loss of water in the plants occurs through
 (A) stem. (B) leaves. (C) roots. (D) flowers
51. The largest size of cell present in the blood is
 (A) RBC. (B) WBC. (C) platelets. (D) plasma.
52. Pulse rate can be measured by feeling a person's
 (A) nerve. (B) artery. (C) capillary. (D) vein.
53. The main medium for transport of oxygen in the body is
 (A) blood. (B) water. (C) platelets. (d) haemoglobin
54. The normal blood pressure in humans is
 (A) 80/120 mmHg. (B) 120/80 mmHg. (C) 120/100 mmHg. (D) 100/80 mmHg
55. Arteries are known to bear the high blood pressure because of the presence of
 (a) thin wall. (b) thick wall. (c) semilunar valve. (d) tricuspid valve
56. Antibodies are produced as a reaction to the presence of
 (A) WBC. (B) haemoglobin. (C) RBC. (D) antigens.
57. In desert plants, the leaves are reduced to
 (A) thorns. (B) tendrils. (C) spines. (D) bristles
58. Urea rich blood is filtered in kidney from
 (A) vein. (B) capillary. (C) artery. (D) blood vessel
59. The blood after filtration in the glomerulus is carried away by
 (A) artery. (B) arteriole. (C) vein. (D) venule.
60. Blood consists of _____ components
 (A) 2 (B) 3 (C) 4 (D) 5

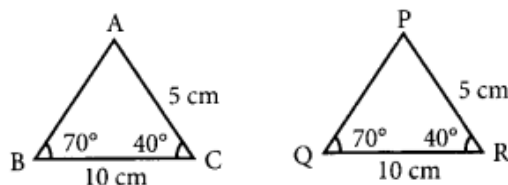
MATHEMATICS

61. In the given figure, if $AB = AC$ and $BD = DC$ then $\angle ADC =$



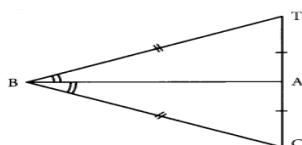
- (a) 45° (b) 60° (c) 125° (d) 90°

62. Which of the following rules of congruency says that $\triangle ABC \cong \triangle PQR$?



- (a) ASA (b) SAS (c) SSS (d) RHS

63. Complete the congruence statement $\triangle BCA \cong$



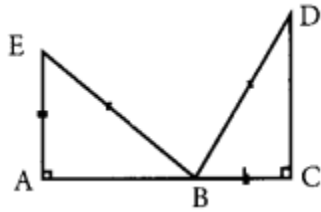
- (a) $\triangle BTA$ (b) $\triangle BAT$ (c) $\triangle ABT$ (d) $\triangle ATB$

64. Two figures are said to be congruent, if they have exactly the same:

- (a) length and width (b) shape and size (c) area (d) perimeter

65. Which congruence criterion do you use in the following?

Given $EB = DB$, $AE = BC$, $\angle A = \angle C = 90^\circ$ so $\triangle AEB \cong \triangle CDB$



- (a) SSS (b) SAS (c) ASA (d) RHS

66. The ratio of 3 m to 60 cm is

- (a) 4 : 1 (b) 3 : 1 (c) 5 : 1 (d) 2 : 1

67. The ages of father and son are 45 years and 10 years. The ratio of their ages is

- (a) 3 : 2 (b) 5 : 2 (c) 9 : 2 (d) 15 : 2

68. The cost of 3 envelopes is ₹ 15. Find the cost of 5 envelopes.

- (a) ₹ 20 (b) ₹ 25 (c) ₹ 30 (d) ₹ 40

69. The cost of 4 m of cloth is Rs 40. Find the cost of 9 m of cloth.

- (a) ₹ 90 (b) ₹ 60 (c) ₹ 50 (d) ₹ 40

70. The ratio of Rs 10 to 50 paise is

- (a) 20 : 1 (b) 10 : 1 (c) 5 : 1 (d) 1 : 20

71. The ratio of 6 kg to 400 g is

- (a) 10 : 1 (b) 15 : 1 (c) 12 : 1 (d) 6 : 1

72. The cost of 7 kg of potatoes is ₹ 42. How many kg of potatoes can be purchased for ₹ 96?

- (a) 10 kg (b) 12 kg (c) 15 kg (d) 16 kg

73. The cost of 8 pencils is ₹ 10. Find the cost of 20 pencils.

- (a) ₹ 20 (b) ₹ 25 (c) ₹ 24 (d) ₹ 30

74. A motorcycle goes 120 km in 3 l of petrol. How much petrol will be required to go 600 km?

- (a) 10 l (b) 12 l (c) 15 l (d) 20 l

75. 0.1 as per cent is

- (a) 1% (b) 10% (c) 100% (d) 0.1%

76. The numerator of the rational number $\frac{1}{100}$ is

- (a) 100 (b) 1 (c) 10 (d) 99

77. The denominator of the rational number $\frac{4}{7}$ is

- (a) 7 (b) 4 (c) 3 (d) 11

78. If $-\frac{7}{11} = \frac{14}{x}$, then $x =$

- (a) 11 (b) -11 (c) 22 (d) -22

79. Which of the following is a negative rational number?

- (a) $\frac{1}{2}$ (b) $\frac{3}{4}$ (c) $-\frac{4}{-5}$ (d) $\frac{2}{-3}$

80. Which of the following is a positive rational number?

- (a) $-\frac{1}{2}$ (b) $\frac{2}{-3}$ (c) $-\frac{3}{-4}$ (d) -5

81. The rational number $\frac{12}{40}$ in standard form is

- (a) $\frac{3}{10}$ (b) $\frac{6}{10}$ (c) $\frac{3}{20}$ (d) $\frac{6}{20}$

82. Which of the following rational numbers -2 is equivalent to $-\frac{2}{5}$?

- (a) $-\frac{4}{10}$ (b) $-\frac{2}{10}$ (c) $-\frac{4}{5}$ (d) $-\frac{6}{25}$

83. Which of the following rational numbers is not equivalent to $\frac{7}{-4}$?

- (a) $\frac{14}{-8}$ (b) $\frac{21}{-12}$ (c) $\frac{28}{-16}$ (d) $\frac{7}{-8}$

84. Which of the following is correct?

- (a) $\frac{1}{-2} > -\frac{1}{3}$ (b) $\frac{1}{-2} < -\frac{1}{3}$ (c) $\frac{1}{-2} = -\frac{1}{3}$ (d) None of these

85. The reciprocal of $-\frac{2}{5}$ is

- (a) $-\frac{5}{2}$ (b) $\frac{5}{2}$ (c) $\frac{2}{5}$ (d) $-\frac{2}{5}$

86. If $\triangle ABC$ is congruent to $\triangle PQR$ such that $\angle PQR = 125^\circ$ then the measure of $\angle ABC =$ _____

- (a) 125° (b) 220° (c) 150° (d) 380°

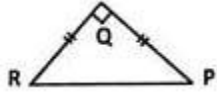
87. In $\triangle PQR$, the included angle between QR and PR is _____

- (a) $\angle P$ (b) $\angle Q$ (c) $\angle R$ (d) none of these

88. If $\triangle PQR \cong \triangle XYZ$ and $XY = 9$ m, $YZ = 5$ cm. then the length of $PQ =$ _____
 (a) 6 cm (b) 5 cm (c) 9 cm (d) 8 cm
89. Two rectangles are congruent if they have the same _____ and _____.
 (a) angle, side (b) length, breadth (c) sides only (d) all the above
90. There are 100 voters. 50 of them votes yes. What per cent voted yes?
 (a) 10% (b) 25% (c) 50% (d) 15%
91. A basket is full of bananas, mangoes and apples. If 50% are mangoes, 30% are apples, then what per cent are bananas?
 (a) 10% (b) 20% (c) 25% (d) 40%
92. The angles of a triangle are in the ratio 1 : 1 : 2. What is the largest angle?
 (a) 90° (b) 45° (c) 30° (d) 60°
93. A watch was purchased for ₹ 316 and sold for ₹ 300. What is the loss?
 (a) ₹ 16 (b) ₹ 8 (c) ₹ 24 (d) ₹ 32
94. The interest on a sum of ₹ 2500 for 4 years at the interest rate 4% is
 (a) ₹ 100 (b) ₹ 200 (c) ₹ 300 (d) ₹ 400
95. The number of students in 2008 was 1000. It became 1100 in 2009. The percentage increase is
 (a) 10% (b) 5% (c) 100% (d) 1000%
96. The rational number $-6/-25$ in standard form is
 (a) $6/25$ (b) $-6/25$ (c) $6/-25$ (d) $-6/25$
97. Which of the following rational numbers is not to equivalent to $3/5$?
 (a) $6/10$ (b) $-3/-5$ (c) $9/15$ (d) $12/24$
98. The sum $5/4 + (-25/4) =$ _____
 (a) -5 (b) 5 (c) 4 (d) -4
99. $17/11 - 6/11 =$ _____
 (a) 1 (b) -1 (c) 6 (d) 3
100. $-6/5 \times 1 =$ _____
 (a) $-6/5$ (b) $6/5$ (c) $-5/6$ (d) $5/6$
101. $7/12 \div (-7/12) =$ _____
 (a) 1 (b) -1 (c) 7 (d) -7
102. $-6/5 \times 1 =$ _____
 (a) $-6/5$ (b) $6/5$ (c) $-5/6$ (d) $5/6$
103. Which of the following rational numbers is not equivalent to $7/-4$?
 (a) $14/-8$ (b) $21/-12$ (c) $28/-16$ (d) $7/-8$
104. The sum $-3/4 + 0 =$ _____
 (a) $3/4$ (b) $-3/4$ (c) 1 (d) 0
105. $2/-5 \times -5/2 =$ _____
 (a) 1 (b) -1 (c) 2 (d) -5
106. In $\triangle RST$, $R = 5$ cm, and $\angle SRT = 45^\circ$ and $\angle RST = 45^\circ$. Which criterion can be used to construct $\triangle RST$?
 (a) A.S.A. criterion (b) S.A.S. criterion (c) S.S.S. criterion (d) R.H.S. criterion
107. A Given $AB = 3$ cm, $AC = 5$ cm, and $\angle B = 30^\circ$, $\triangle ABC$ cannot be uniquely constructed, with AC as base, why?
 (a) Two sides and included angle are given.
 (b) The other two angles are not given.
 (c) The vertex B cannot be uniquely located.
 (d) The vertex A coincides with the vertex C.
108. A line point X not on it are given. Which of the following is used to draw a line parallel to p through X?
 (a) Equal corresponding angles. (b) Congruent triangles.
 (c) Angle sum property of triangles. (d) Pythagoras' theorem.
109. $\triangle PQR$ is such that $\angle P = \angle Q = \angle R = 60^\circ$ which of the following is true?
 (a) $\triangle PQR$ is equilateral. (b) $\triangle PQR$ is acute angled.
 (c) Both [a] and [b] (d) Neither [a] nor [b]

110. Which vertex of $\triangle ABC$ is right angled if $AB = 8 \text{ cm}$, $AC = 6 \text{ cm}$, $BC = 10 \text{ cm}$,?
 (a) C (b) A (c) B (d) A or C

111. An isosceles triangle is constructed as shown in the figure.



Which of the given statements is incorrect?

- (a) PR is the hypotenuse of $\triangle PQR$.
 (b) $\triangle PQR$ is an equilateral triangle.
 (c) $\triangle PQR$ is a right angled triangle.
 (d) If right angled $\triangle PQR$ has its equal angles measuring 45° each.
112. $\triangle PQR$ is constructed with all its angles measuring 60° each. Which of the following is correct?
 (a) $\triangle PQR$ is an equilateral triangle. (b) $\triangle PQR$ is isosceles triangle.
 (c) $\triangle PQR$ is a scalene triangle. (d) $\triangle PQR$ is a right angled triangle.
113. How many perpendicular lines can be drawn to a line from a point not on it?
 (a) 1 (b) 2 (c) 0 (d) Infinite
114. Which of the following is NOT constructed using a ruler and a set square?
 (a) A perpendicular to a line from a point not on it.
 (b) A perpendicular bisector of a line segment.
 (c) A perpendicular to a line at a point on the line.
 (d) A line parallel to a given line through a given point.
115. In $\triangle XYZ$, x , y and z denote the three sides. Which of the following is incorrect?
 (a) $x - y > z$ (b) $x + z > y$ (c) $x - y < z$ (d) $x + y > z$
116. In which of the following cases can a triangle be constructed?
 (a) Measures of three sides are given.
 (b) Measures of two sides and an included angle are given.
 (c) Measures of two angles and the side between them are given.
 (d) All the above.
117. Based on the sides of a triangle, which of the following is a classification of triangles?
 (a) A right angled triangle (b) An acute angled triangle
 (c) An obtuse angled triangle (d) An isosceles triangle
118. Which of the following is used to draw a line parallel to a given line?
 (a) A protractor (b) A set square
 (c) A ruler (d) A ruler and compasses
119. Choose the correct option in which a triangle CANNOT be constructed with the given lengths of sides.
 (a) 3 cm, 4 cm, 5 cm (b) 7 cm, 6 cm, 5 cm
 (c) 10 cm, 7 cm, 2 cm (d) 12 cm, 8 cm, 6 cm
120. Identify the true statement.
 (a) A triangle with 3 equal sides is isosceles.
 (b) A triangle with a 110° angle is right angled.
 (c) A triangle with 3 acute angles is acute angled.
 (d) A triangle with 2 equal sides is equilateral.