Atomic Energy Central School No 4 Rawatbhata

Multiple Choice Questions Examination (November 2019-20)

MM: 120 Class VII (Mathematics, Science, Social Science) Time:3hour

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Name of student : _____Roll No._____Class Sec_____

Date: _____ Invigilator's Sign: _____

Mathematics

1. Write down the additive inverse of $\frac{-7}{12}$. 1

   a) None of these b) $\frac{9}{4}$

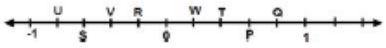
   c) $\frac{-5}{9}$ d) $\frac{7}{12}$

2. Fill in the boxes with the correct symbol: $\frac{-7}{8}$ ___ $\frac{14}{-16}$ 1

   a) = b) >

   c) < d) None of these

3. The points P, Q, R, S, T, U and V on the number line are such that, US = SV = VR, and WT = TP = PQ. The rational number represented by P 1



   a) $\frac{1}{5}$ b) $\frac{3}{5}$

   c) $\frac{4}{5}$ d) $\frac{2}{5}$

4. Find the multiplicative inverse of $\frac{2}{9}$. 1

   a) $\frac{2}{9}$ b) $\frac{9}{2}$

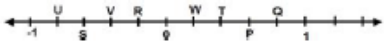
   c) $-\frac{9}{2}$ d) $-\frac{2}{9}$

5. The equivalent rational number of $\frac{-6}{5}$ is 1

   a) $\frac{-12}{10}$ b) $\frac{12}{10}$

   c) $\frac{6}{5}$ d) $\frac{-6}{5}$

6. The points P, Q, R, S, T, U and V on the number line are such that, US = SV = VR, and WT = TP = PQ. The rational number represented by T 1



   a) $\frac{3}{5}$ b) $\frac{4}{5}$

   c) $\frac{1}{5}$ d) $\frac{2}{5}$

7. The product of two rational numbers is always a _____. 1

   a) whole number b) irrational number

   c) rational number d) negative number

8. Fill in the boxes with the correct symbol: $\frac{-2}{3}$ ___ $\frac{2}{3}$ 1

   a) > b) <

   c) = d) None of these

9. Sum of two rational numbers is a _____. 1

   a) none of these b) negative number

   c) irrational number d) rational number

10. Find the sum of $13\frac{3}{4} + \left(-11\frac{1}{2}\right)$. 1

    a) None of these b) $\frac{1}{2}$

    c) $\frac{1}{4}$ d) $2\frac{1}{4}$

11. A number which can be written in the form $\frac{p}{q}$, where p and q are _____ and $q \neq 0$ is called a rational number. 1

a) integers
b) irrational number
c) none of these
d) negative number

12. Find a rational number between $\frac{1}{4}$ and $\frac{1}{2}$. 1

a) $\frac{3}{8}$
b) 0
c) $\frac{1}{2}$
d) 2

13. Find $\frac{3}{7}+\left(-\frac{6}{11}\right)+\left(-\frac{8}{21}\right)+\frac{5}{22}$ 1

a) $\frac{-125}{462}$
b) 462
c) -125
d) 125

14. Find: $-\frac{2}{3}\times\frac{3}{5}+\frac{5}{2}-\frac{3}{5}\times\frac{1}{6}$ 1

a) 1
b) 0
c) None of these
d) 2

15. There are _____ number of rational numbers between two rational numbers. 1

a) 1
b) None of these
c) 2
d) unlimited

16. Romila, Pooja and Swati went out for dinner in a hotel. Romila paid $\frac{1}{3}$ of the bill, Pooja paid $\frac{1}{5}$ of the bill. Swati paid the remaining part of the bill. What part of the bill was paid by Swati? 1

a) $\frac{7}{15}$
b) $\frac{1}{15}$
c) $\frac{3}{15}$
d) $\frac{4}{15}$

17. Find the multiplicative inverse of $\frac{1}{4}$. 1

a) $\frac{1}{4}$
b) -4
c) $-\frac{1}{4}$
d) 4

18. $0\times\frac{1}{4}=$ _____ 1

a) 1
b) 4
c) $\frac{1}{4}$
d) 0

19. Identify the greatest rational number. 1
$\frac{5}{7}, \frac{450}{-7}, \frac{-3}{21}, -\frac{29}{14}$

a) $\frac{450}{-7}$
b) $\frac{-3}{21}$
c) $-\frac{29}{14}$
d) $\frac{5}{7}$

20. Find: $\frac{2}{5}\times\frac{-3}{7}-\frac{1}{14}-\frac{3}{7}\times\frac{3}{5}$ 1

a) $-\frac{1}{2}$
b) 2
c) 1
d) $\frac{1}{2}$

21. Sum of two rational numbers is -8, one of them is $\frac{3}{4}$, find the other number. 1

a) $\frac{-35}{4}$
b) None of these
c) $\frac{35}{4}$
d) 35

22. $\frac{7}{5}+\ldots=\frac{7}{3}$ 1

a) $\frac{1}{2}$
b) $\frac{14}{15}$
c) $\frac{14}{7}$
d) None of these

23. Find the value of $\frac{-1}{8}\div\frac{3}{4}$. 1

a) -6
b) 6
c) None of these
d) $\frac{-1}{6}$

24. A number which can be written in the form _____, where p and q are integers and $q\neq 0$ is called a rational number. 1

a) p – q
b) $p\times q$
c) $\frac{p}{q}$
d) p + q

25. If 35 shirts of equal size can be stitched from $\frac{49}{2}$ metres of cloth, what is the length of the cloth required for each shirt? Find the length of cloth required for 4 shirts of equal size. 1

a) 2.8 m
b) None of these
c) 2.5 m
d) 1.8 m

26. Find the multiplicative inverse of -13. 1

a) 12
b) -13
c) $\frac{-1}{13}$
d) 13

27. Rewrite the rational number $\frac{-18}{48}$ in the simplest form. 1

a) $\frac{-5}{8}$
b) $\frac{3}{8}$
c) None of these
d) $\frac{-3}{8}$

28. Write down the additive inverse of $\frac{-4}{9}$. 1

a) None of these
b) $\frac{9}{4}$
c) $\frac{4}{9}$
d) $\frac{-5}{9}$

29. Find the product of $\frac{-3}{5} \times \frac{35}{7} \times \frac{-1}{6}$. 1

a) $\frac{1}{2}$
b) $\frac{1}{4}$
c) None of these
d) 1

30. Write the additive inverse of $\frac{9}{8}$. 1

a) 0
b) 1
c) $-\frac{9}{8}$
d) $\frac{9}{8}$

31. An _____ has one end point at a vertex of the triangle and the other on the line containing the opposite side. 1

a) altitude
b) vertex
c) median
d) side

32. In order to construct a line parallel to a given line through a point not on it, which of the following properties are used? 1

a) Sum of the three angles of a triangle is 180°
b) Exterior angle of a triangle is equal to the sum of its two interior opposite angles
c) Alternate interior angles are equal
d) Pythagoras property

33. In which of the following cases, a unique triangle can be drawn 1

a) An isosceles triangle with the length of each equal side 6.2 cm.
b) XY = 5 cm, ∠X = 45° and ∠Y = 60°
c) AB = 4 cm, BC = 8 cm and CA = 2 cm
d) BC = 5.2 cm, ∠B = 90° and ∠C = 110°

1

34. **Which of the following options is correct (possible) for ASA triangle construction?**

a) 5 cm, 40°, 80°
b) 3 cm, 50°, 140°
c) 6 cm, 110°, 95°
d) 4 cm, 90°, 90°

35. In an isosceles triangle base angles opposite to the equal sides are _____. 1

a) simple
b) not equal
c) equal
d) Right

36. In a △ XYZ, ∠X = 60° and ∠Z = 65°, then the measure of ∠Y is 1

a) 55°
b) None of these
c) 100°
d) 95°

37. How many acute angles can a right triangle have? 1

a) 1
b) 0
c) 2
d) 3

38. A triangle in which two altitudes of the triangle are two of its sides is _____. 1

a) right-angled triangle
b) obtuse-angled triangle
c) None of these
d) acute-angled triangle

39. A triangle in which all three sides are of equal lengths is called _____. 1

a) Equilateral
b) None of these
c) Scalene
d) Isosceles

40. How many obtuse angles can a right triangle have? 1

a) 3 b) 0
c) 2 d) 1

Science

41. In which of the following parts of human body are sweat glands absent? 1

a) Armpits b) Lips
c) Scalp d) Palms

42. In plants xylem and phloem comprise the 1

a) Reproductive tissue b) Vascular tissue
c) Food storing tissue d) Protective tissue

43. Oxygenated blood is transported through 1

a) Arteries b) Pulmonary arteries
c) Vein d) Capillaries

44. Blood is slightly 1

a) Acidic b) Highly acidic
c) Neutral d) Alkaline

45. Where urea is synthesised in our body? 1

a) Liver b) Lung
c) Heart d) Kidney

46. Lymph is without 1

a) Plasma b) Leucocytes
c) Thrombocytes d) Erythrocytes

47. Erythrocytes is the another name of 1

a) Red blood cells b) White blood cells
c) Thrombocytes d) Platelets

48. Name an animal that do not possess circulatory system? 1

a) Earthworm b) Cockroach
c) Hydra d) Frog

49. Urine consists of: 1

a) 95% water, 5% urea b) 87.5% water, 3.5% urea
c) 97.5% water, 2.5% urea d) 95% water, 2.5% urea

50. Heart rate increase during 1

a) Rest and indigestion b) Exercise and fever
c) Bathing and eating d) Sleep and eating

51. Which one of the following process generates a force which pulls water absorbed by the roots? 1

a) Transpiration b) Glycolysis
c) Photosynthesis d) Respiration

52. Which of the following is termed as the 'Grave yard' of RBC? 1

a) Spleen b) Liver
c) Bone marrow d) Kidney

53. What is the pulse rate of a resting person? 1

a) 82-90 beats / min b) 52-60 beats / min
c) 62-70 beats / min d) 72-80 beats / min

54. In human beings, carbon dioxide is mainly transported by 1

a) WBC b) Platelets
c) Plasma d) RBC

55. An adult human being normally passes about ---------- of urine in 24 hours. 1

a) 2 to 2.5 L b) 0.5 to 0.85 L
c) 2 to 5 L d) 1 to 1.8 L

56. Which one of the following contains haemoglobin? 1

a) Platelets b) EBC
c) WBC d) RBC

57. Blood does not transport oxygen in 1

a) Earthworm b) Frog
c) Cockroach d) Man

58. Which one of the following always carries oxygenated blood? 1

a) Blood capillaries b) Heart pump
c) Veins except pulmonary vein d) Arteries except pulmonary artery

59. They are pipe-like, consisting of a group of specialised cells. They transport substances form a two-way traffic in plants. Which of the following terms qualify for the features mentioned above? 1

a) Phloem tissue b) xylem tissue
c) Root hairs d) Vascular tissue

60. Arteries are thick walled because 1

a) The blood flow with jerk b) They are to pump blood
c) They have oxygenated blood d) They are without valves

61. Fragrant flowers with well developed nectarines are an adaptation for 1

a) Water pollination b) Insect pollination
c) Wind pollination d) Bat pollination

62. In yeasts reproduction occurs by: 1

a) Spore formation b) Budding
c) Binary fission d) Fragmentation

63. The figure shown below is 1

a) Fruit of sunflower b) Seed of oak
c) Seed of xanthium d) Flower of cactus

64. In sexual reproduction, male gametes fuse with female gametes to form 1

a) Zygote b) Female gametophyte
c) Fruit d) Male gametophyte

65. A piece of potato tuber will form a new plant if it has 1

a) Roots b) Stored food
c) Branches d) Eyes

66. Vegetative parts of plants include 1

a) Stem, leaves and flower b) Stem, root and flower
c) Stem, root and leaves d) Stem, branch and flower

67. Reproductive parts of a plant is the 1

a) Leaf b) Stem
c) Root d) Flower

68. Which process of asexual reproduction is involved in fern? 1

a) Vegetative propagation b) Budding
c) Fragmentation d) Spore formation

69. The scars on potato tuber is called 1

a) Eyes b) Seed
c) Axil d) Buds

70. The production of new individual from their parents is known as 1

a) Regeneration b) Fertilization
c) Fragmentation d) Reproduction

71. Asexually reproduced organism inheriting all the characters of the parent is 1

a) Clone b) Offspring
c) Variety d) Hybrid

72. Wind pollinated flowers produce 1

a) Larger sized pollen grains b) Very less number of pollen grains
c) Very large number of pollen grains d) Heavy and sticky pollen grains

73. Fruit is a mature ovary, where as seed is fertilized 1

a) Petals b) Anther
c) Carpel d) Ovule

74. Pistil, the female reproductive part of flower includes 1

a) Stigma, filament and ovary b) Stigma, style and ovary
c) Anther, style and ovary d) Style, filament and ovary

75. Reproduction is essential for 1

a) Continuation of species on earth b) Change in habitat
c) Development of variation d) Increase in population

76. Pollination is the movement of pollen grains from: 1

a) Anther to bud b) Anther to stigma
c) Anther to ovary d) Anther to egg

77. Bread mold reproduce by 1

a) Fragmentation b) Spore formation
c) Regeneration d) Binary fission

78. Male gametes in pollen grain reach to female gamete by 1

a) Funicular b) Pollen tube
c) Ovule tube d) Ovary tube

79. Fleshy and juicy fruits are found in 1

a) Walnuts and almond b) Orange and almond
c) Mango and orange d) Mango and almond

80. Most of the fruits are ripened----------. 1

a) Ovary b) Seeds
c) Endosperm d) Pistils

Social Science

81. Akbar Nama was written by 1

a) Abul Fazal b) Rahim Khan
c) Todar mal d) Raja man Singh

82. Who transported food grain for the Mughals army during military campaigns? 1

a) Santal b) Kolis
c) Banjaras d) Ahoms

83. Rajput belongs to different lineages except which one of them? 1

a) Chandelas b) Mughals
c) Chalukyas d) Hunas

84. Who was the son of Durgawati and Dalpat? 1

a) Bir Narain b) Ram Das
c) Aman Das d) Salbahan

85. The Banjaras were the most important trader nomads. Their caravan was called 1

a) Khel b) Clan
c) Tanda d) Itinerant

86. The Akbar Nama, a history of Akbar's reign, mentions the Gond kingdom of Garha Katanga that had 1

a) 90,000 villages b) 70,000 villages
c) 50,000 villages d) 10000 villages

87. Following are the tribes of east India except 1

a) Ahoms b) Langahs
c) Nagas d) Kacharis

88. Ahoms migrated to the Brahmaputra valley from present-day _____ in the thirteenth century. 1

a) Sri Lanka
b) Nepal
c) Myanmar
d) Bhutan

89. Under Aurangzeb, Mughals forces captured many ___ fortresses and subjugated the tribe. 1

a) Cheros
b) Bhils
c) Ahoms
d) Santals

90. In 1662 who defeated the Ahom kingdom? 1

a) Mughals under Rahim Khan
b) Raja Man Singh
c) Mughals under Mir Jumla
d) Todar Mal

91. Tiruchirapalli taluka is in present-day 1

a) Kerala
b) Tamil Nadu
c) Karnataka
d) Andhra Pradesh

92. Ahoms believe in 1

a) Parsi
b) Hinduism
c) Sikh
d) Islam

93. Which of the following is true regarding Ahoms? 1

a) They did not use fire arms
b) They lived in Ahomwana
c) Kingdom was divided into garhs
d) By the first-half of 17th century the administration become quite centralised

94. Who described about the Banjaras? 1

a) William Mundy
b) John Peas
c) Ahoms Mundy
d) Peter Mundy

95. ___ rather than varnas became the basis for organising society. 1

a) Clan
b) Jatis
c) Varna Clan
d) Varna

96. The most commonly used means of transport are roads. They can be- 1

a) Metalled and Unmetalled
b) Short and Long
c) Temporary and Permanent
d) Rural and Urban

97. A scattered settlement is- 1

a) A place where people build their homes
b) A place where a building or a settlement develops
c) A closely built area of dwellings, wherever flat land is available
d) Where dwellings are spaced over an extensive area

98. ___ is most adversely affected by bad weather like fog and storms. 1

a) Rail traffic
b) Expressway traffic
c) Air traffic
d) Road traffic

99. Thick mud walled houses are very common in- 1

a) Hot climate
b) Dry climate
c) Wet climate
d) Cold climate

100. The train from Xining to Lhasa runs at an altitude of 4,000m above sea level and the highest point is 1

a) 3,502 m
b) 4,402 m
c) 8,720 m
d) 5,072 m

101. Scattered settlement found in the following areas except 1

a) Hilly tracts
b) Cities
c) Thick forests
d) Regions of extreme climate

102. Roads built underground are called- 1

a) Subways
b) Expressways
c) Metalled
d) Unmetalled

103. The ___ have a dense network of road. 1

a) Plateau
b) Rivers
c) Mountains
d) Plains

104. St. Petersburg is in **1**

a) China b) Japan

c) Russia d) Indonesia

105. The train from Xining to Lhasa runs at an altitude of _____ above sea level **1**

a) 2,000m b) 3,000m

c) 4,000m d) 1,000m

106. In village you will found- **1**

a) Well equipped schools b) Big cinema hall

c) Good hospital d) Open space

107. Waterways are mainly of two types,these are- **1**

a) Inland waterways and Sea routes b) Express waterways and Sea routes

c) Metalled waterways and Unmetalled routes d) Rural waterways and Urban routes

108. Media with which large number of people can communicate is called_____. **1**

a) Mass media b) Local media

c) People media d) Large media

109. It is the only mode of transport to reach the most remote and distant areas- 1

a) Waterways b) Roadways c) Airways d) Railways

110. Mostly settlements nowadays are- 1

a) Site settlements b) Permanent settlements c) Shifting settlements d) Temporary settlements

111. This word refers to people's lives being identified by the products they own, the clothes they wear, the places they eat in, etc. 1

a) Lifelong b) Lifestyle c) Lifeline d) Lifelike

112. The aim of the advertisements is to 1

a) Increase cost of product b) Increase the quality of the product

c) Increase quantity of the product d) Persuade customer to buy product

113. How brand values are conveyed to the consumers 1

a) Use of audio and words give an overall image b) Use of visual and words give an overall image

c) Use of visual and picture give an overall image d) Use of signs and symbols give an overall image

114. What is the telecast rate for a 30 seconds advertisement on a major TV channel 1

a) 1.80 lakh b) 1.56 lakh c) 1.65 lakh d) 1.35 crore

115. Most of the cartoons that you see on television are mostly from 1

a) China or the United States b) Japan or the United States c) Japan or the Pakistan d) China or Pakistan

116. Branded daals cost much more than daals that are sold loose because they include the costs of 1

a) Packaging and advertising b) packaging and printing

c) Packaging and place it produced d) packaging and factors of production

117. Who is confused because it really cannot be differentiated between top taste item and best taste items 1

a) Distributor b) Retailer c) Consumer d) Producer

118. How media decide upon which events need to be published 1

a) Events which are against politician b) Events which make interesting stories

c) Events which take less time to cover d) Events which are against businessmen

119. Advertisement draw our attention towards 1

a) Products b) Brand value c) All of these d) Brands

120. Changing technology, or machines, and making technology more modern, helps _____ to reach more people1

a) Leaders b) Citizens c) Media d) Big Business Houses

Solution

Class 07 - Mathematics

MULTIPLE CHOICE QUESTION EXAMINATION

Section A

1. (d)
$\frac{7}{12}$

Explanation:
additive inverse is the number which when added to the given number gives result as 0
additive inverse of $\frac{-7}{12}$ is $\frac{7}{12}$
$\frac{-7}{12}$ + $\frac{7}{12}$=0

2. (a)
=

Explanation:
$\frac{-14}{16}$ = $\frac{-7}{8}$ { reducing $\frac{-14}{16}$ with 2}
thus $\frac{-7}{8} = \frac{14}{-16}$

3. (b)
$\frac{3}{5}$

Explanation:
Since, between 0 and 1, there are 5 numbers with equal distance between them.
So, distance between any two number is $\frac{1}{5}$
Now, P is 3 points away from1, so p would be $\frac{3}{5}$

4. (b)
$\frac{9}{2}$

Explanation:
Multiplicative inverse of a number is number which when multiplied with the given number gives product as 1.
so Multiplicative inverse of $\frac{2}{9}$ is $\frac{9}{2}$
$\frac{2}{9} \times \frac{9}{2}$ =1

5. (a)
$\frac{-12}{10}$

Explanation:
The equivalent rational number of $\frac{-6}{5}$ is $\frac{-12}{10}$
Multiplying both numerator and denominator of $\frac{-6}{5}$ gives $\frac{-12}{10}$

6. (d)
$\frac{2}{5}$

Explanation:
Since there are 5 numbers equal distant from 0 and 1.
so every number is a $\frac{1}{5}$ difference
since T is 2 numbers away from 0
so, it is $\frac{2}{5}$

7. (c)
rational number

Explanation:
Multiplying two rational numbers is multiplying two such fractions which will result in another fraction of same form.
Thus, multiplying two rational numbers produces another rational number.
ex: $\frac{2}{5} \times \frac{1}{7} = \frac{2}{35}$

8. (b)
<

Explanation:
$\frac{2}{3}$ is positive so it is greater than -$\frac{2}{3}$
-$\frac{2}{3}$ < $\frac{2}{3}$

9. (d)
rational number

Explanation:
Sum of two rational numbers is a rational number.
for, exampe, $\frac{2}{3}$ + $\frac{4}{3}$ = $\frac{6}{3}$

10. (d)
$2\frac{1}{4}$

Explanation:
$13\frac{3}{4} + \left(-11\frac{1}{2}\right)$
here, we can add 13+ (-11) seperately and $\frac{3}{4}$+ (-$\frac{1}{2}$)
so, 13+ (-11)= 2
$\frac{3}{4}$+ (-$\frac{1}{2}$) = $\frac{1}{4}$
so, the ans is $2\frac{1}{4}$

11. (a)
integers

Explanation:
A number which can be written in the form$\frac{p}{q}$, where p and q are **Integers** and $q \neq 0$is called a rational number
p, q can be negative or positive.

12. (a)
$\frac{3}{8}$

Explanation:
to find a rational number between $\frac{1}{4}$ and $\frac{1}{2}$
add both numbers and divide it by 2
$\frac{1}{4}$ + $\frac{1}{2}$= $\frac{1+2}{4}$ = $\frac{3}{4}$
now divide it by 2, $\frac{3}{4\times2}$ = $\frac{3}{8}$
so, rational number between $\frac{1}{4}$ and $\frac{1}{2}$ is $\frac{3}{8}$

13. (a)
$\frac{-125}{462}$

Explanation:

$=\frac{3}{7}+\left(-\frac{6}{11}\right)+\left(-\frac{8}{21}\right)+\frac{5}{22}$

bring similar numbers together

$=\frac{3}{7}+\frac{-8}{21}+\frac{-6}{11}+\frac{5}{22}$

$=\frac{3\times3-8}{21}+\frac{-6\times2+5}{22}$

$\frac{1}{21}+\frac{-7}{22}$

taking LCM of 22 & 21 as 462

$=\frac{22-154}{462}$

$=\frac{-125}{462}$

14. (d)

2

Explanation:

$=-\frac{2}{3}\times\frac{3}{5}+\frac{5}{2}-\frac{3}{5}\times\frac{1}{6}$

Following squence DMAS(Division, multipication, addition, subtraction)

$=\frac{-2}{5}+\frac{5}{2}-\frac{1}{10}$

Now, taking LCM of denominator, as 10

$=\frac{-4}{10}+\frac{25}{10}-\frac{1}{10}$

$=\frac{-4+25-1}{10}$

$=\frac{20}{10}$

=2

15. (d)

unlimited

Explanation:

There are infinite numbers between any two rational numbers.

16. (a)

$\frac{7}{15}$

Explanation:

Given,

Romila paid $\frac{1}{3}$ of the bill

Pooja paid $\frac{1}{5}$ of the bill

Let, Swati paid bill =x

so, $\frac{1}{3}+\frac{1}{5}+x=1$

$x=1-\frac{1}{5}-\frac{1}{3}$

$=\frac{15-3-5}{15}$ { taking LCM of 5 &3 as 15}

$=\frac{7}{15}$

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

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

17. (d)

4

Explanation:

Multiplicative inverse is the number which when multiplied with the given number, gives product as 1

So, multiplicative inverse of $\frac{1}{4}$ is 4

$\frac{1}{4}\times4=1$

18. (d)

0

Explanation:
Zero multiplied by any number is 0

19. (d)
$\frac{5}{7}$

Explanation:
Since, $\frac{450}{-7}$, $\frac{-3}{21}$, -$\frac{29}{14}$ are negative numbers, so they cannot be greatest among given numbers.
so, $\frac{5}{7}$ is the greatest number

20. (a)
$-\frac{1}{2}$

Explanation:
$\frac{2}{5} \times \frac{-3}{7} - \frac{1}{14} - \frac{3}{7} \times \frac{3}{5}$
Using squence of DMAS(Division, multiplication, addition and subtraction)
=$\frac{-6}{35}$ - $\frac{1}{14}$ - $\frac{9}{35}$
Now, taking LCM of 35,14,35 which is 70
= $\frac{-12-5-18}{70}$
= $\frac{-35}{70}$
= $\frac{-1}{2}$

21. (a)
$\frac{-35}{4}$

Explanation:
Sum of two rational numbers is -8, one of them is $\frac{3}{4}$
let the other number is x
so, $\frac{3}{4}$ + x= -8
x = - 8 -$\frac{3}{4}$
=$\frac{-32-3}{4}$
= $\frac{-35}{4}$

22. (b)
$\frac{14}{15}$

Explanation:
Let the number to be filed is x
so, $\frac{7}{5}$ + x = $\frac{7}{3}$
x = $\frac{7}{3}$ - $\frac{7}{5}$
= $\frac{35-21}{15}$ { taking LCM of 3& 5 as 15}
= $\frac{14}{15}$

23. (d)
$\frac{-1}{6}$

Explanation:
=$\frac{-1}{8} \div \frac{3}{4}$
=$\frac{-1}{8} \times \frac{4}{3}$
=$\frac{-1}{2\times3}$

$=\frac{-1}{6}$

24. (c)
$\frac{p}{q}$

Explanation:
Recall definition of a Rational number. Example $\frac{1}{6}, \frac{6}{1}$

25. (a)
2.8 m

Explanation:
Given,
35 shirts of equal size can be stitched from $\frac{49}{2}$metres of cloth
so, the length of the cloth required for each shirt = $\frac{49}{2\times35}$
= $\frac{7}{2\times5}$ = $\frac{7}{10}$m
Thus, cloth required for 4 shirts = $\frac{7}{10}\times4$ = $\frac{7\times2}{5}$
=$\frac{14}{5}$m = 2.8m

26. (c)
$\frac{-1}{13}$

Explanation:
Multiplicative inverse is the number which when multiplied with the given number gives result as 1.
so, Multiplicative inverse of $\frac{-13}{1}$ is $\frac{-1}{13}$
$\frac{-13}{1}$ × $\frac{-1}{13}$ =1

27. (d)
$\frac{-3}{8}$

Explanation:
First we will reduce $\frac{-18}{48}$ with 2
so, the resilt would be $\frac{-9}{24}$
now, we will reduce $\frac{-9}{24}$ with 3
so, the ans would be $\frac{-3}{8}$

28. (c)
$\frac{4}{9}$

Explanation:
additive inverse of a number is the number which when added with the given number given the resukt as 0.
so, additive inverse of $\frac{-4}{9}$ is $\frac{4}{9}$
$\frac{-4}{9}$ + $\frac{4}{9}$ =0

29. (a)
$\frac{1}{2}$

Explanation:
=$\frac{-3}{5}\times\frac{35}{7}\times\frac{-1}{6}$
(reducing 6 with -3 and 35 with 5)
= $\frac{-1\times7\times-1}{7\times2}$
= $\frac{1}{2}$

=

30. (c)
$-\frac{9}{8}$

Explanation:
The additive inverse of a number is the number which you add to the given number so that the resultant is zero.
so, Additive inverse of a number is number itself with negative sign
so, Additive inverse of $\frac{9}{8}$ is -$\frac{9}{8}$
$\frac{9}{8} + \frac{-9}{8} = 0$

31. (a)
altitude

Explanation:
The altitude is a line segment that extends from a vertex and that is perpendicular to the side opposite the vertex.

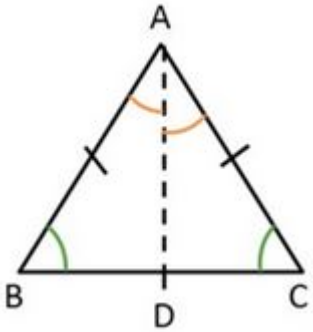
32. (c) Alternate interior angles are equal
Explanation:
In order to construct a lone parallel to a given line through a point not on it, we use the property that if a transversal cuts a pair of parallel lines alternate interior angles are equal.

33. (b) XY = 5 cm, ∠X = 45° and ∠Y = 60°
Explanation:
XY = 5 cm, ∠X = 45° and ∠Y = 60°
As it satisfies ASA property.

34. (a) 5 cm, 40°, 80°
Explanation:
5 cm, 40°, 80°

35. (c)
equal

Explanation:



In Isosceles triangle ABC, AB = AC
Draw a bisector of ∠A intersecting BC at D.
In △BAD and △CAD
AB = AC and ∠BAD = ∠CAD
AD = AD (common side)
△ BAD ≅ △CAD (BY SAS congruence rule)
Thus, ∠ABD = ∠ACD (BY CPCT)
⇒ ∠B = ∠C
Hence in an isosceles triangle base angles opposite to the equal sides are equal.

36. (a)

55°

Explanation:
The sum of all the interior angles of a triangle equals 180°.
$\angle X + \angle Y + \angle Z = 180°$
$60° + \angle Y + 65° = 180°$
$125° + \angle Y = 180°$
$\angle Y = 180° - 125°$
$\angle Y = 55°$

37. (c)
2

Explanation:
A right triangle can, and must, have exactly two acute angles.
To see this, just remember that the sum of the angles of a triangle must be 180°. As a right triangle has one angle equal to 90°, this means the sum of the remaining two angles must be 180° - 90° = 90°.
Thus, both of the remaining two angles must have a measure less than 90° and therefore must be acute.

38. (a)
right-angled triangle

Explanation:
In right angled triangle two altitude of triangle are two of its sides. Two sides other than hypotenuse are its altitudes.

39. (a)
Equilateral

Explanation:
An equilateral triangle is a triangle whose three sides all have the same length.

40. (b)
0

Explanation:
A right triangle can, and must, have exactly two acute angles.
To see this, just remember that the sum of the angles of a triangle must be 180°. As a right triangle has one angle equal to 90°, this means the sum of the remaining two angles must be 180° - 90° = 90°.
Thus, both of the remaining two angles must have a measure less than 90° and therefore there is no obtuse angles.

Solution

Class 07 - Science

Multiple Choice Question Eamination

Section A

41. (b)
Lips

Explanation:
Lips

42. (b) Vascular tissue
Explanation:
In plants there are special tubes called xylem and phloem, which comprise the conducting tisuues or vascular tissues. The vascular tissue for the transport of water and nutrients in the plant is called the xylem. The food has to be transported to all parts of the plant. This is done by the vascular tissue called the phloem. Thus, xylem and phloem transport substances in plants.

43. (a) Arteries
Explanation:
Arteries are made of thicker walls. Arteries carry oxygenated blood from the heart to different organs. Pulmonary artery is an exception, because it carries deoxygenated blood from the heart to the lungs.

44. (d) Alkaline
Explanation:
A pH of 7.0, in the middle of this scale, is neutral. Blood is normally slightly basic, alkaline, with a pH range of 7.35 to 7.45. To function properly, the body maintains the pH of blood close to 7.40. An important property of blood is its degree of acidity and alkalinity, and this is referred to as acid-base balance.

45. (a) Liver
Explanation:
Urea is the end product of a series of biochemical reactions, and the urea production occurs at liver, then is transported to kidney, at last, excreted as urine.

46. (d) Erythrocytes
Explanation:
Erythrocytes are red blood cells that travel in the blood. Their characteristics of being red, round, and like rubber give them the ability to complete their specific functions. They carry oxygen from the lungs to the body, and bring carbon dioxide back to the lungs to be expelled. Lymph a colourless fluid derived from blood by filtration through capillary walls in the tissues. Lymph is without Erythrocytes.

47. (a) Red blood cells
Explanation:
Red blood cells (RBCs), also called erythrocytes, are the most common type of blood cell and the vertebrate's principal means of delivering oxygen to the body tissues—via blood flow through the circulatory system.

48. (c) Hydra
Explanation:
Animals such as sponges and Hydra do not posses any circulatory system. The water in which they live brings food and oxygen as it enters their bodies. The water carries away waste materials and carbon dioxide as it moves out. Thus, these animals do not need a circulatory fluid like the blood.

49. (d)
95% water, 2.5% urea

Explanation:
The kindeys, ureters, bladder and urethra form the excretory system. An adult human being normally passes about 1- 1.8 L of urine in 24 hours. The urine consists of 95% water,2.5% urea and 2.5% other waste

products.

50. (b) Exercise and fever
Explanation:
Heart beat increase when you do some extra work, such as running, cycling or when you are excited or under stress. This can be felt as an increase in the thumping or throbbing and relaxation. This rhythmic contraction followed by expansion constitutes a heartbeat. Heart rate increase during exercise and fever.

51. (a)
Transpiration

Explanation:
Transpiration pull is referred as suction force and this force is used to draw the water in an upward direction from the roots to the leaves.

52. (a) Spleen
Explanation:
The spleen is a center of activity of the mononuclear phagocyte system and can be considered analogous to a large lymph node, as its absence causes a predisposition to certain infections. Old and damaged RBCs are destroyed in the spleen. Hence, it is known as the graveyard of RBCs.

53. (d)
72-80 beats / min

Explanation:
The number of beats per minute is called the pulse rate. A resting person, usually has a pulse rate between 72 and 80 beats per minute.

54. (c) Plasma
Explanation:
Carbon dioxide is more soluble in water. Hence is mostly transported from body tissues in the dissolved form in our blood plasma to lungs. Where it diffuses from blood to air in the lungs.

55. (d) 1 to 1.8 L
Explanation:
The kindeys, ureters, bladder and urethra form the excretory system. An adult human being normally passes about 1- 1.8 L of urine in 24 hours. The urine consists of 95% water,2.5% urea and 2.5% other waste products.

56. (d)
RBC

Explanation:
Red blood cells (RBC) are disc-shaped cells. They contain a red-coloured pigment called haemoglobin, which makes the blood appear red. This pigment combines with oxygen and transports it to all parts of the body.

57. (c) Cockroach
Explanation:
Male cockroaches have colorless blood, while the female cockroaches may occasionally have orange blood. This is due to the absence of hemoglobin in their blood . Hemoglobin makes human blood red. Human beings use hemoglobin to carry oxygen, but cockroaches do not carry oxygen.

58. (d)
Arteries except pulmonary artery

Explanation:
Arteries are made of thicker walls. Arteries carry oxygenated blood from the heart to different organs. Pulmonary artery is an exception, because it carries deoxygenated blood from the heart to the lungs.

59. (a)
Phloem tissue

Explanation:
Phloem tissue

60. (b) They are to pump blood
Explanation:
Blood is pumped into the arteries with a lot of pressure and the thickness helps the arteries to sustain such pressure. Veins are thin walled as they carry deoxygenated blood towards the heart and experience less pressure comparable to that of arteries.

61. (b) Insect pollination
Explanation:
Insect pollinated flowers are usually large, brightly coloured, scented and with nectar.

62. (b)
Budding

Explanation:
Most yeasts reproduce asexually by an asymmetric division process called budding. First it produces a small protuberance on the parent cell that grows to a full size and forms a bud.

63. (a)
Fruit of sunflower

Explanation:
The figure shown below show hairy fruit of sunflower of sunflower.

64. (a) Zygote
Explanation:
Anther contains pollen grains which produce male gametes. A pistil consists of stigma, style and ovary. The ovary contains one or more ovules. The female gamete or the egg is formed in an ovule. In sexual reproduction a male and a female gamete fuse to form a zygote.

65. (d) Eyes
Explanation:
When the tuber of potato is cut into several pieces and each piece bears an ‘eye’; each piece produces a new plant.

66. (c) Stem, root and leaves
Explanation:
Vegetative propagation is a type of reproduction in which new plants are produced from the vegetative parts of the plants, i.e. roots, stems, leaves and buds.

67. (d) Flower
Explanation:
Plant reproduction is the production of new individuals or offspring in plants. The flower is the reproductive unit of some plants (angiosperms). Parts of the flower include petals, sepals, one or more carpels (the female reproductive organs), and stamens (the male reproductive organs).

68. (d)
Spore formation

Explanation:
A spore is an asexual reproductive body, surrounded by a hard protective cover to withstand unfavourable conditions such as high temperature and low humidity. Under favourable conditions, the spores germinate and grow into new plants. Plants like moss and ferns use this mode of reproduction.

69. (a) Eyes
Explanation:

The scars on the potato are called 'eyes'. They are actually the buds. Each bud can grow into a new plant.

70. (d) Reproduction
Explanation:
The process by which a living being produces its offspring is called reproduction.

71. (a) Clone
Explanation:
Cloning is the process of producing similar populations of genetically identical individuals that occurs in nature when organisms such as bacteria, insects or plants reproduce asexually.

72. (c) Very large number of pollen grains
Explanation:
The wind does not deliver pollen directly to any particular plant. Polinating insects are encouraged to visit the next flower. The wind deposits pollen everywhere at once. Wind polinated plants therefore have a much greater area to cover, and produce more pollen.

73. (d) Ovule
Explanation:
After fertilisation, the ovary grows into a fruit and other parts of the flower fall off. The fruit is the ripened ovary. The seeds develop from the ovules. The seed contains an embryo enclosed in a protective seed coat.

74. (b) Stigma, style and ovary
Explanation:
A pistil consists of stigma, style and ovary. The ovary contains one or more ovules. The female gamete or the egg is formed in an ovule.

35. (a) Continuation of species on earth
Explanation:
Reproduction is one of the most important characteristic of all living beings. It is the production of ones own kind. It is necessary for the continuation of the species on earth and also to replace the dead members of the species. The process by which living organisms produce their offsprings for the continuity of the species is called reproduction.

76. (b)
Anther to stigma

Explanation:
The transfer of pollen from the another to the stigma of a flower is called pollination. Self pollination and cross pollination are the two types of pollination.

77. (b) Spore formation
Explanation:
Bread mould reproduce by spore formation. Spores are small structures containing a nucleus. They are produced in large numbers and are very light, being easily dispersed by air and other agents. Rhizopus stolonifer which is a fungi is also known as bread mould.

78. (b) Pollen tube
Explanation:
A pollen tube is part of the male gametophyte of seed plants. It acts as a conduit to transport the male gamete cells from the pollen grain, either from the stigma (in flowering plants) to the ovules.
A pollen grain on the stigma grows a tiny tube, all the way down the style to the ovary. This pollen tube carries a male gamete to meet a female gamete in an ovule.

79. (c) Mango and orange
Explanation:
Fleshy fruits are made of living cells and are often juicy and. So Fleshy and juicy fruits are found in mango and orange.

80. (a) Ovary
Explanation:

After fertilisation, the ovary grows into a fruit and other parts of the flower fall off. The fruit is the ripened ovary.

Solution

Class 07 - Social Science

MULTIPLE CHOICE QUESTION EXAMINATION

Section A

81. (a) Abul Fazal
Explanation:
The Akbar Nama, a history of Akbar's reign, was written by Abul Fazl.

82. (c) Banjaras
Explanation:
Banjaras transported food grain for the Mughal army during military campaigns. With a large army there could be 100,000 bullocks carrying grain.

83. (b) Mughals
Explanation:
They belonged to different lineages, such as Hunas, Chandelas, Chalukyas and others.

84. (a) Bir Narain
Explanation:
Dalpat, however, died early. Rani Durgawati was very capable, and started ruling on behalf of her five-year-old son, Bir Narain.

85. (c) Tanda
Explanation:
The Banjaras were the most important tradernomads. Their caravan was called tanda.

86. (b) 70,000 villages
Explanation:
The Akbar Nama, a history of Akbar's reign, mentions the Gond kingdom of Garha Katanga that had 70,000 villages.

87. (b) Langahs
Explanation:
The *Langah is* a Muslim tribe and is settled Punjab, Sindh, Balochistan, Lasbela in Pakistan and in the states of Gujarat and Rajasthan in India.

88. (c) Myanmar
Explanation:
The Ahoms migrated to the Brahmaputra valley from present-day Myanmar in the thirteenth century.

89. (a) Cheros
Explanation:
Under Aurangzeb, Mughal forces captured many Chero fortresses and subjugated the tribe.

90. (c) Mughals under Mir Jumla
Explanation:
In 1662, the Mughals under Mir Jumla attacked the Ahom kingdom. Despite their brave defence, the Ahoms were defeated. But direct Mughal control over the region could not last long.

91. (b) Tamil Nadu
Explanation:
A twelfth-century inscription from Uyyakondan Udaiyar, in Tiruchirapalli taluka (in present-day Tamil Nadu), describes the deliberations in a sabha (Chapter 2) of Brahmanas.

92. (b) Hinduism
Explanation:
Hinduism became the predominant religion among the Ahoms.

93. (d) By the first-half of 17th century the administration become quite centralised
Explanation:

By the first half of the seventeenth century the administration became quite centralised.

94. (d) Peter Mundy
Explanation:
Peter Mundy, an English trader who came to India during the early seventeenth century, has described the Banjaras: In the morning we met a tanda of Banjaras with14,000 oxen. They were all laden with grains such as wheat and rice … These Banjaras carry their household – wives and children – along with them. One tanda consists of many families. Their way of life is similar to that of carriers who continuously travel from place to place. They own their oxen. They are sometimes hired by merchants, but most commonly they are themselves merchants. They buy grain where it is cheaply available and carry it to places where it is dearer. From there, they again reload their oxen with anything that can be profitably sold in other places … In a tanda there may be as many as 6 or 7 hundred persons … They do not travel more than 6 or 7 miles a day – that, too, in the cool weather. After unloading their oxen, they turn them free to graze as there is enough land here, and no one there to forbid them.

95. (a)
Clan

(b)
Jatis

Explanation:
Jatis, rather than varna, became the basis for organising society.

96. (a) Metalled and Unmetalled
Explanation:
The most commonly used means of transport especially for short distances are roads. They can be metalled and unmetalled. The plains have a dense network of roads. Roads have also been build in terrains like deserts, forests and even high mountains. Manali-Leh highway in the Himlayan Mountains is one of the highest roadways in the world. Roads built underground are called subways/under paths. Flyovers are built over raised structures.

97. (d)
Where dwellings are spaced over an extensive area

Explanation:
Settlements are places where people build their homes. Now a days two different pictures of settlements have seen– the rural and the urban settlements.Rural settlements can be compact or scattered.In a scattered settlement dwellings are spaced over an extensive area. This type of settlement is mostly found in hilly tracts, thick forests, and regions of extreme climate.

98. (c) Air traffic
Explanation:
Airwayis the fastest way of transport developed in the early twentieth century. It is also the most expensive due to high cost of fuels. Air traffic is adversely affected by bad weather like fog and storms. It is the only mode of transport to reach the most remote and distant areas especially where there are no roads and railways.

99. (a) Hot climate
Explanation:
In rural areas, people build houses to suit their environment. In regions of heavy rainfall, they have slanting roofs. Places where water accumulates in the rainy season the houses are constructed on a raised platform or stilts. Thick mud walled houses with thatched roofs are very common in areas of hot climate. Local materials like stones, mud, clay, straw etc are used to construct houses.

100. (d) 5,072 m
Explanation:
The train from Xining to Lhasa runs at an altitude of 4,000m above sea level and the highest point is 5,072 m

101. (b) Cities
Explanation:
Two different settlements are the rural and the urban settlements. Rural settlements can be compact or scattered.In a scattered settlement dwellings are spaced over an extensive area. This type of settlement is mostly found in hilly tracts, thick forests, and regions of extreme climate. In rural areas, people build houses to suit their environment.

102. (a) Subways
Explanation:
The most commonly used means of transport especially for short distances are roads.They can be metalled (pucca) and unmetalled (kutcha).The plains have a dense network of roads. Roads have also been build in terrains like deserts, forests and even high mountains.Roads built underground are called subways/under paths. Flyovers are built over raised structures.

103. (d) Plains
Explanation:
The most commonly used means of transport especially for short distances are roads. They can be metalled and unmetalled.The plains have a dense network of roads,as Expressways, and Highways.Roads have also been build in terrains like deserts, forests and even high mountains, but the plains have more numberof roads than hilly area.

104. (c) Russia
Explanation:
St. Petersburg is a Russian port city on the Baltic Sea. It was founded in 1703 by Peter the Great, subject of the city's iconic “Bronze Horseman” statue. It remains Russia's cultural center, with venues such as the Mariinsky Theatre hosting opera and ballet, and the State Russian Museum showcasing Russian art.

105. (c) 4,000m
Explanation:
The train from Xining to Lhasa runs at an altitude of 4,000m above sea level and the highest point is 5,072 m

106. (d) Open space
Explanation:
In a scattered settlement dwellings are spaced over an extensive area. This type of settlement is mostly found in hilly tracts, thick forests, and regions of extreme climate. villages may not have big cinema halls, well-equipped schools and good hospitals, but they have lot of open spaces and fresh air to breathe in.

107. (a) Inland waterways and Sea routes
Explanation:
Since early days waterways were used for transportation. Waterways are the cheapest for carrying heavy and bulky goods over long distances. They are mainly of two types – inland waterways and sea routes.Sea routes and oceanic routes are mostly used for transporting merchandise and goods from one country to another.These routes are connected with the ports. Navigable rivers and lakes are used as inland waterways. Some of the important inland waterways are the Ganga-Brahmaputra river system.

108. (a) Mass media
Explanation:
Communication is the process of conveying messages to others. With the development of technology humans have devised new and fast modes of communication. Different modes of communication are used to provide information, to educate as well as to entertain. Through newspapers, radio and television we can communicate with a large number of people. They are therefore called mass media.

109. (c) Airways
Explanation:
Airway is the fastest way of transport developed in the early twentieth century. It is also the most expensive due to high cost of fuels. Air traffic is adversely affected by bad weather like fog and storms. It is the only mode of transport to reach the most remote and distant areas especially where there are no roads and railways. Helicopters are extremely useful in most inaccessible areas and in time of calamities for rescuing people and distributing food, water, clothes and medicines.

110. (b) Permanent settlements
Explanation:
Settlements are places where people build their homes. Early human beings lived on trees and in caves. When they started to grow crops it became necessary to have a permanent home. Settlements which are occupied for a short time are called temporary settlements. However more and more settlements today are permanent settlements, In these settlements, people build homes to live in

111. (b) Lifestyle
Explanation:
Lifestyle: In this chapter, this word refers to people's lives being identified by the products they own, the clothes they wear, the places they eat in, etc.

112. (d) Persuade customer to buy product
Explanation:
The purpose of advertising is to inform the consumers about their product and convince customers that a company's services or products are the best, enhance the image of the company

113. (b) Use of visual and words give an overall image
Explanation:
Values such as treating our guests well and making sure our children get nutritious food are used by brands to create brand values. These brand values are conveyed through the use of visuals and words to give us an overall image that appeals to us.

114. (c) 1.65 lakh
Explanation:
The telecast rate for a 30 second advertisement on a major TV channel is Rs 1.65 lakh.

115. (b) Japan or the United States
Explanation:
Television images travel huge distances through satellites and cables. This allows us to view news and entertainment channels from other parts of the world. Most of the cartoons that you see on television are mostly from Japan or the United States.

116. (a) packaging and advertising
Explanation:
Branded daals cost much more than daals that are sold loose because they include the costs of packaging and advertising. So, many people cannot afford them.

37. (c) Consumer
Explanation:
The consumer is consumer confused because they really cannot tell the difference between 'Top Products' and 'Best Best Product'. The manufacturer has to give the consumer a reason to prefer a particular brand of product.

118. (b) Events which make interesting stories
Explanation:
The media tends to focus on a particular aspect of a story because they believe this makes the story interesting

119. (c) All of these
Explanation:
Advertisements draw our attention to various products and describe them positively so that we become interested in buying them.Also Advertising brand is all about building brand and its value.

120. (c)
Media

Explanation:
Changing technology, or machines, and making technology more modern, helps media to reach more people. It also improves the quality of sound and the images