

1. Which statement is always true about an equilateral triangle?

- A. It has 3 congruent angles
- B. It has 1 right angle
- C. It has exactly 2 congruent sides
- D. The sum of any 2 angles is 180°

Right Answer:: A

2. Jai received Rs. 70 as a gift. He wanted to use the money to go to the movies and to buy a book. He wanted to save the money he had left. Which is the correct order of steps to find the amount of money Jai would have left to save?

Step K: Find the sum of the costs of the movie and the book.

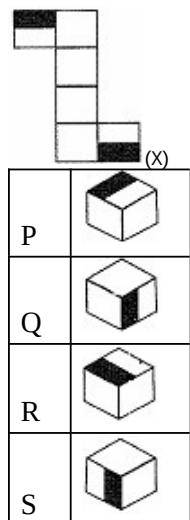
Step L: Find the difference between Rs.70 and the sum of the costs of the movie and the book.

Step M: Identify the cost of the movie and the cost of the book

- A. L, K, M
- B. M, K, L
- C. L, M, K
- D. K, L, M

Right Answer:: B

3. In the following questions, figures below marked (X) at left hand side is folded in such a way that it could form a shape of a box. You have to choose one of the choice given as (A), (B), (C) & (D) that is similar as the box formed



- A. P & Q only
- B. Q & R only
- C. Q & .S only
- D. P,Q,R &S

Right Answer:: D

4. Rajesh scored 61 out of 100 in English, 93 out of 100 in Maths and 56 out of 100 in Science. Find out his overall % marks

- A. 60%
- B. 70%
- C. 75%
- D. 80%

Right Answer:: B

5. In an examination one should get 36% of the maximum marks to pass. A student obtains 113 marks and declared failed by 85 marks. The maximum marks are

- A. 500
- B. 550
- C. 640
- D. 1008

Right Answer:: B

6. A man sold 10 eggs for 5 rupees and gained 20%. How many eggs did he buy for 5 rupees?

- A. 12
- B. 25/12
- C. 25
- D. 27

Right Answer:: A

7. Which expression is equal to $5(2x + 1 - x - 4)$?

- A. $9x - 3$
- B. $5x - 15$
- C. $5x - 3$
- D. $5x + 25$

Right Answer:: B

8. The value of $1 + \frac{1}{4 \times 3} + \frac{1}{4 \times 3^2} + \frac{1}{4 \times 3^3} + \frac{1}{4 \times 3^4}$ is

- A. $\frac{121}{104}$
- B. $\frac{3}{2}$
- C. $\frac{31}{2}$
- D. $\frac{7}{8}$

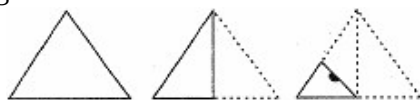
Right Answer:: D

9. What is the ratio of the two numbers whose sum is 72 and the measure of which is $\frac{2}{7}$?

- A. 16: 56
- B. 14: 56
- C. 15: 56
- D. 16: 72

Right Answer:: A

10. A triangular piece of paper is folded and punched as shown in the question figures. How will it appear when opened? Select your response from the answer figures.



- A.
- B.
- C.
- D.

Right Answer:: C

11. What fraction of an hour is a second?

- A. $\frac{1}{24}$
- B. $\frac{1}{60}$
- C. $\frac{1}{120}$
- D. $\frac{1}{3600}$

Right Answer:: D

12. The list of numbers below shows prime numbers arranged in an increasing order.

23, x, 31, 37, 41, y, 47

The value of $x + y$ is ____

- A. 68
- B. 70
- C. 72
- D. 74

Right Answer:: C

13. Which group contains only prime numbers?

- A. 11, 17, 37 anti 39
- B. 7, 19, 33 and 41
- C. 1, 11, 27and 43
- D. 5, 13, 29 and 47

Right Answer:: D

14. if $\frac{x^2 - 1}{x + 1} = 4$, $x = ?$

- A. 0
- B. 1
- C. 4
- D. 5

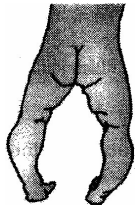
Right Answer:: D

15. If the area of a square field is 4 hectares, then its side is

- A. 200 m
- B. 200 hectare
- C. 200 cm
- D. 20 m

Right Answer:: A

16. The disease shown in the figure is caused due to the deficiency of



- A. Vitamin B
- B. Protein
- C. Vitamin D
- D. Vitamin A

Right Answer:: C

17. Which of the following statements regarding liver is incorrect?

- A. It helps in digestion by producing bile
- B. It removes and stores the iron from dead red blood cells
- C. It stores proteins and fats
- D. It purifies blood

Right Answer:: C

18. Which fabric particularly needs to be stored with an insect repellent?

- A. Cotton shirts
- B. Silk sarees
- C. Nylon socks
- D. Sweaters

Right Answer:: D

19. A Tibetan antelope yields a kind of wool which is considered to be the world's finest and warmest wool, with fibres one-fifth the

thickness of a human hair. This wool is also called the 'king of wools'. Name the brand of wool and the antelope from which it is obtained?

- A. Shahtoosh-Chiru
- B. Mohair-Angora
- C. Vicuna-llama
- D. Grease wool-Chinkara

Right Answer:: A

20. A thermos flask prevents loss or gain of heat by

- A. Conduction only
- B. Convection only
- C. Radiation only
- D. All of these

Right Answer:: D

21. When you put a metal key into its metal lock, you find the key is too tight. Which of the following methods will you adopt to make the key fit properly?

- A. Heat the key and lock
- B. Cool the key and heat the lock
- C. Heat the key and cool the lock
- D. Cool the key and lock

Right Answer:: B

22. Read the given statements and select the correct option.

Statement 1; Acids are sour in taste while bases are bitter in taste.

Statement 2: Baking soda does not taste sour

- A. Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1
- B. Both statements 1 and 2 are true but statement 2 is not the correct explanation of statement I
- C. Statement 1 is true, and statement 2 is false
- D. Both statements 1 and 2 are false

Right Answer:: B

23. How will you classify the given sets of acids?

Set-I	Set-II
(i) HCl	(i) CH ₃ COOH
(ii) H ₂ SO ₄	(ii) HCOOH
(iii) HNO ₃	(iii) C ₂ H ₅ COOH

- A. Set-I consists of mineral acids while set-II consists of organic acids
- B. Set-I consists of organic acids while set-II consists of mineral acids
- C. Both sets consist of mineral acids
- D. Both sets consist of organic acids

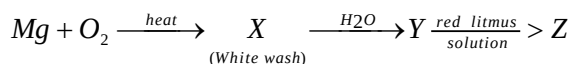
Right Answer:: A

24. Mark the correct statement

- A. Burning of coal does not produce a new substance
- B. Rust is hydrated Fe_2O_3
- C. The fizz that comes out when a soda bottle is opened is due to a chemical change
- D. Respiration is a physical process

Right Answer:: B

25. Observe the given flow chart carefully and answer



What does Z indicate?

- A. Red litmus does not show change in colour
- B. Red litmus turns blue
- C. Red litmus turns yellow
- D. The solution becomes colourless

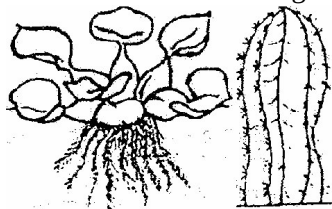
Right Answer:: B

26. All changes in the weather are caused by

- A. Sun
- B. Earth
- C. Wind
- D. Rain

Right Answer:: A

27. Which of the following statements are true about the given plants?



Water hyacinth Cactus

- (i) Both of the plants have swollen leaf stalks.
- (ii) Both are food producers
- (iii) Both are flowering plants
- (iv) Both have waxy leaves

- A. (i) & (ii)
- B. (ii) & (iii)
- C. (iii) & (iv)
- D. (i) & (iv)

Right Answer:: B

28. The winds from oceans carry water and bring rain are called

- A. Cyclone
- B. Typhoon

- C. Monsoon
- D. None of these

Right Answer:: C

29. The factor which contribute to the development of cyclones is/are
(i) Wind speed (ii) Temperature (iii) Humidity

- A. (i) only
- B. (ii) & (vi) only
- C. (i) & (iii) only
- D. All of the above

Right Answer:: D

30. Low atmospheric pressure exists on the earth in which of the following latitudes?

- A. At the equator only
- B. At 30° N and S
- C. At the poles
- D. At the equator and at 60° N and S

Right Answer:: A

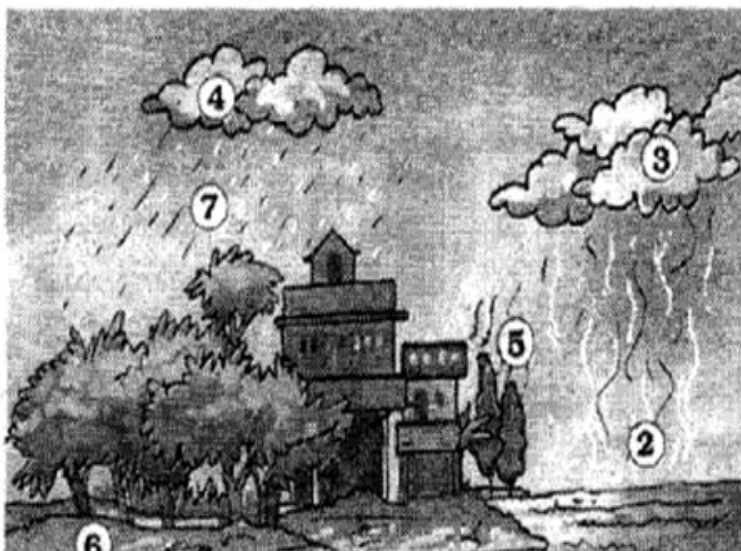
31. Which of the following statements regarding forests are false?

- (i) Source of medicines, timber and other products.
- (ii) Do not help in maintenance of moisture.
- (iii) Act as air purifier.
- (iv) Do not act as water purifier
- (v) Protect us from droughts and floods

- A. (ii) & (iii)
- B. (ii) & (iv)
- C. (iii), (iv) & (v)
- D. (i), (iv) & (v)

Right Answer:: B

32. Refer the given figure of water cycle and answer





In the above figure if (1) represents the river water, then what does (5) represent?

- A. Condensation
- B. Evaporation
- C. Transpiration
- D. Precipitation

Right Answer:: C

33. Any sample of natural water which contains more than 2% of dissolved salts, especially the common salt, is caused

- A. Potable water
- B. Saline water
- C. Distilled water
- D. Decanted water

Right Answer:: B

34. Which of the following is present in the respiratory system of insects, fish and mammals?

- A. Blood containing oxyhaemoglobin
- B. Alveoli
- C. Spiracles
- D. A thin moist surface

Right Answer:: D

35. When air tubes in the lungs become inflamed the condition is called

- A. Bronchitis
- B. Emphysema
- C. Lung cancer
- D. Wheezing

Right Answer:: A

36. Which of the following is the correct order for travel of air through different organs of respiratory system?

- A. Nostrils → larynx → trachea → alveoli → bronchi → bronchioles
- B. Nostrils → trachea → larynx → alveoli → bronchi → bronchioles
- C. Nostrils → larynx → trachea → bronchi → bronchioles → alveoli
- D. Nostrils → trachea → larynx → bronchi → bronchioles → alveoli

Right Answer:: C

37. “The red blood cells are red in colour due to the presence of haemoglobin”. The given statement is

- A. True
- B. False

- C. Incomplete
- D. Both (B) & (C)

Right Answer:: A

38. Capillaries exchange the following between blood and tissues

- A. Oxygen, carbon dioxide, RBC, food
- B. Oxygen, carbon dioxide, food, wastes
- C. Water, plasma, WBC, RBC
- D. Oxygen, carbon dioxide, WBC, RBC

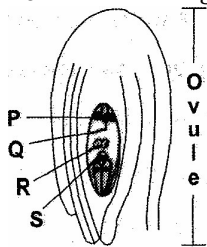
Right Answer:: B

39. Select a mechanism which humans do not use for excreting their wastes from the body

- A. Exhalation
- B. Perspiration
- C. Defecation
- D. Transfusion

Right Answer:: D

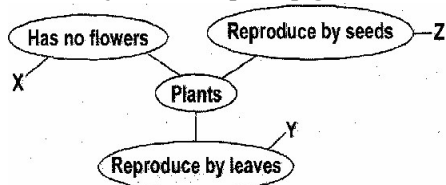
40. Look at the figure of female gametophyte inside the ovule. Where will you find the egg cell?



- A. P
- B. Q
- C. R
- D. S

Right Answer:: D

41. Study the concept map given below.



Which one of these correctly shows X, Y and Z based on the above mapping?

- A. Bird's nest fern Begonia Papaya
- B. Bird's nest fern Pineapple Begonia
- C. African violet Begonia Staghorn fern
- D. Staghorn fern Papaya Pineapple

Right Answer:: A

42. Which of the following is a correct match

A. Fruit	Agent of	Part of seed which helps in
	dispersal	dispersal
Drum stick	Water	Wings of seed

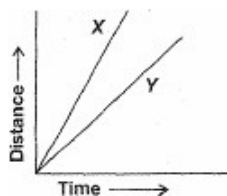
B. Fruit	Agent of	Part of seed which helps in
	dispersal	Dispersal
Madar	Water	Hairy seeds

C. Fruit	Agent of	Part of seed which helps in
	dispersal	dispersal
Coconut	Water	Spongy outer coat

D. Fruit	Agent of	Part of seed which helps in
	dispersal	dispersal
Xanthium	Animals	Hooks in seeds

Right Answer:: B

43. The figure shows the distance-time graph for the motion of two vehicles X and Y. Which one of them is moving faster?



- A. X
- B. Y
- C. Both move with same speed
- D. Y is faster initially, then X gets faster

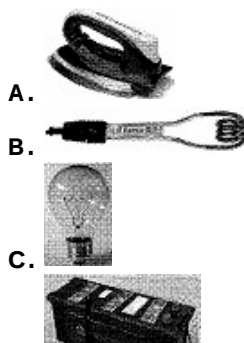
Right Answer:: A

44. A body said to be in non-Uniform motion

- A. If the speed or direction of the body remains constant
- B. If the speed or direction of the body does not remain constant
- C. If it covers equal distances in equal intervals of time
- D. None of these

Right Answer:: B

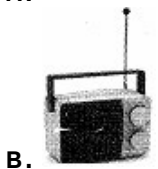
45. Which of the following does not use the heating effect of current?



D. 

Right Answer:: D

46. Which of these does not use the magnetic effect of electric current?



D. None of these

Right Answer:: C

47. Marking on a bulb is 60 W, 220 V. What does it signify?

- A. The bulb is connected across the 220 Volts, 60 Joules of energy is consumed for every second
- B. The is connected 60 Joules, 220 Volts of energy is consumed
- C. 60 Unit of current will flow in the bulb
- D. 220 Unit of current will flow in the bulb

Right Answer:: A

48. The image which can be obtained on screen is called

- A. Erect
- B. Real
- C. Virtual
- D. Inverted

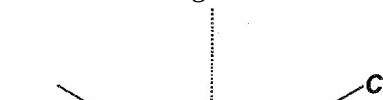
Right Answer:: B

49. Rainbow is produced when sunlight falls on drops of rain. Which of the physical phenomena are responsible for this?

- A. Diffusion
- B. Refraction and internal reflection
- C. Only refraction
- D. Diffusion, refraction and total internal reflection

Right Answer:: B

50. From the diagram below, what is the angle of incidence?





- A. 25°
- B. 50°
- C. 65°
- D. 90°

Right Answer:: A