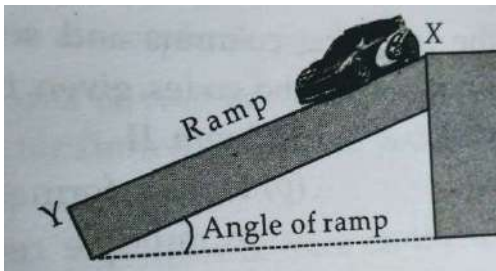


10. Any substances maybe regarded as a fuel which liberates carbon dioxide, water vapours and heat energy on reaction with
 a. Oxygen b. Water
 c. Carbon monoxide d. Hydrogen
11. Identify an industrial fuel :
 a. Water Gas b. Producer Gas
 c. Coal d. All of them
12. Lighted candle -----, when it is put in a gas jar containing oxygen
 a. Goes off
 b. Burns with brighter flame
 c. Burns slowly
 d. makes specific kind of sound.
13. We should not wear polyester while working in kitchen because
 a. It produces heat and we feel hot
 b. It feels uncomfortable , as it does not allow air to pass through
 c. Its fabric melts and sticks to the body, in case of fire.
 d. It is not hygienic to wear synthetic fibre clothes.
14. The weak attractive forces present in graphite are called
 a. Gravitational forces
 b. Van Der Val Forces
 c. Coulumbic Forces
 d. Repulsive Force
15. A thermometer is inserted into a beaker filled with ice at 0°C. The beaker is heated slowly. The temperature does not rise for some time. This is because
 a. Ice is very cold
 b. Heat was used for changing ice at 0°C to water at 0°C.
 c. The density of water is more than ice
 d. The density of water is less than ice.
16. A car travels at a speed of 80km/hour for 15 minutes and then at a speed of 40 km/hr for next 15 minutes. The average speed of the car is
 a. 15.4 ms⁻¹ b. 16.7 ms⁻¹
 b. 17.7 ms⁻¹ d. 18.7 ms⁻¹
17. A stone tied to a string is whirled in a circle. As it is revolving, the string suddenly breaks. The stone then
 a. Flies off radially outwards
 b. Flies off radially inwards
 c. Flies off tangentially
 d. Moves in a circle of larger radius
18. When a horse pulls a cart, the force that helps the cart to move forward is the force exerted by
 a. The cart on the horse
 b. The ground on the horse
 c. The ground on the cart
 d. The horse on the ground

19. A toy car is released from point X of the ramp and travels towards point Y. What is/are the forces responsible for pulling the car towards point Y?



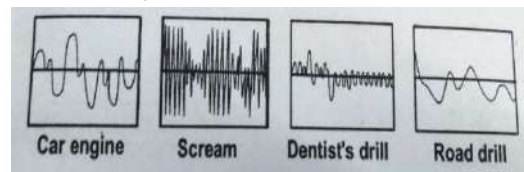
- (i) Weight of the car
 (ii) Earth's magnetic field
 (iii) Frictional force between the wheels and the ramp
- a. (i) only
 b. (i) and (ii) only
 c. (ii) and (iii) only
 d. All of these

20. The type of motion with reference to friction in decreasing order is
- a. Rolling, static, sliding
 b. Rolling, Sliding, Static
 c. Static, Sliding, Rolling
 d. Sliding, Static, Rolling

21. If one puts ones ears to the steel rail, the sound of a coming train can be heard even when the train cannot be seen. One can conclude from this observation that
- (1) Sound travels faster in steel than in air
 (2) Amplitude of sound in the rail is much larger than in air
 (3) Sound can travel larger distances in solids than in air.

- (4) Quality of sound in rail is better than in air
- The reasonable conclusions are
- (a) 1 and 3 (b) 1 and 2
 (c) 2 and 3 (d) 2 and 4

22. The oscilloscope traces for sound waves with different frequencies are shown in the diagram in the increasing order of frequency are a



- (a) Car engine, Scream, Dentist's drill, Road drill
 (b) Road drill, Car engine, Dentist's drill, Scream
 (c) Scream, Car engine, Dentist's drill, Road Drill
 (d) Dentist's drill, road drill, Scream, Car Engine

23. Which of the following answer is correct?

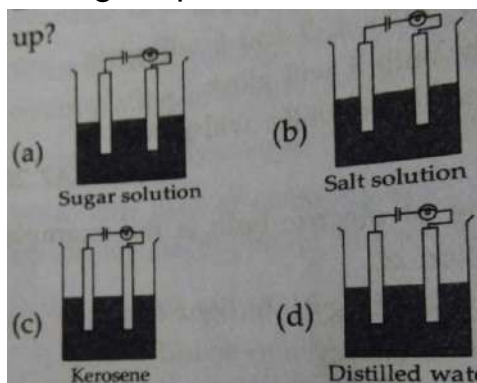
(a) $C = \frac{5(F-32)}{9}$ (b) $C = \frac{9(F-32)}{9}$
 (c) $C = \frac{5(F+32)}{9}$ (d) $C = \frac{9(F+32)}{5}$

24. A 60 watt bulb is used for 30 days, each day for 5 hours, the energy consumed in kwh is
- (a) 6 kwh (b) 9 kwh
 (c) 0.3 kwh (d) 9000 kwh

25. In a torch the cells are arranged in
- Series
 - Parallel
 - Both in series and parallel
 - None of the above

26. Inside an electric bulb
- There is vacuum
 - Air is filled inside
 - Inert gases are filled
 - Hydrogen gas is filled

27. In which of the following will the bulb light up?



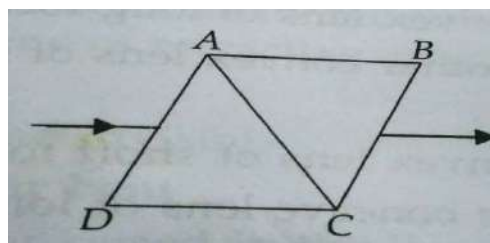
- a. A b. B c. C d. D

28. Magnetic lines of force emanate from ___ and ___
- North Pole and terminate at South Pole
 - South to North Pole
 - Positive charge to negative charge of electricity
 - None of the above

29. ___ Source of energy should be used judiciously.
- Wind energy
 - Fossil Fuel energy
 - Solar energy
 - Hydroelectric Energy

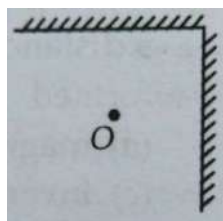
30. The least distance of distinct vision for a normal human eye is
- 250 cm
 - 40cm
 - 25 cm
 - 1 m

31. On passing through a prism, a parallel beam of sunlight splits into lights of several colours. Take a combination of two identical prisms as shown in figure. A parallel beam of sunlight is incident on the face AD. The emergent light from the face BC, consists of



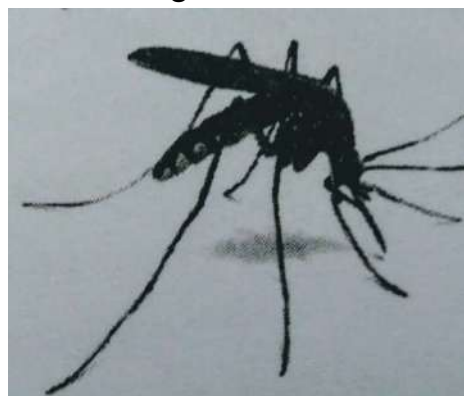
- A parallel beam of light of several colours
- A divergent beam of lights of several colours
- A parallel beam of white light
- A divergent beam of white light

32. Two mirrors are placed at right angles to each other as shown in the figure. Total number of images of an object O placed between them, that are seen are



- Two
- Three
- Four
- Six

33. A glass rod of refractive index 1.42 is immersed in kerosene of refractive index 1.42. The rod will
- Become invisible
 - Appear bent
 - Appear raised in liquid
 - Appear as a plate
34. A mirage is observed when ____
- Density of air decreases with increase in height
 - Density of air increases with height
 - Refractive index of air decreases with increase in height
 - Earth acts as a mirror
35. Sandy soil is suitable for cultivating ____ crop
- Sugarcane
 - Turmeric
 - Cotton
 - watermelon
36. When a small amount of garden soil is put into a glass jar containing water, stirred and allowed to stand for two hours, the layers from top to bottom would be :
- debris, water, sand & clay
 - humus, water, clay & sand
 - debris, clay, gravel & sand
 - humus, clay, gravel & sand
37. Raju had an uneven plot of land in which water was scarce. What system could he adopt for irrigation?
- Canal
 - Sprinkler
 - Drip
 - Hand Pump
38. Which of the following is a disease caused by protozoa?
- Typhoid
 - Measles
 - Diphtheria
 - Malaria
39. Match the column I (diseases) with column II (causative organisms) and select the correct answers from codes below ::
- | Column I | Column II |
|-------------------|---------------------------|
| A. Plague | (i) Rubeola |
| B. Whooping Cough | (ii) Wucheraria bancrofti |
| C. Measles | (iii) Yersinia Pestis |
| D. Elephantiasis | (iv) Bordetella Pertusis |
- | | A | B | C | D |
|-----|-------|-------|-------|-------|
| (a) | (iv) | (iii) | (i) | (ii) |
| (b) | (iii) | (iv) | (i) | (ii) |
| (c) | (iv) | (i) | (iii) | (ii) |
| (d) | (iv) | (ii) | (i) | (iii) |
40. Which of the following diseases is not transmitted by the vector shown in figure?



- Malaria
- Yellow Fever
- Typhoid
- Sleeping Sickness
- Kala Azar

- (a) (ii),(iii),(iv)
- (b) (i),(iii),(iv)
- (c) (i) and (ii)
- (d) (iii),(iv) and (v)

41. The animal found in Ranthambore National Park of Rajasthan is
 (a) Elephant (b) Tiger
 (c) Lion (d) Bear

42. Ram was going through a forest and found many similar plants. What amongst the following could be the reason for the observed phenomenon. The plants are
 A. Of many genera
 B. Of only one species
 C. Capable of interbreeding
 D. Capable of crossbreeding

Select the correct alternative from below:

- a. A and B
- b. B and C
- c. C and D
- d. A and D

43. Match the membranous organelles with their function and select the correct option.

Membranous Organelles

- A. Endoplasmic Reticulum
- B. Golgi Complex
- C. Mitochondria
- D. Vacuoles

FUNCTIONS

- E. Powerhouse of cells
- F. Storage Organelle
- G. Transport of Substances

H. Secretion of Chemicals

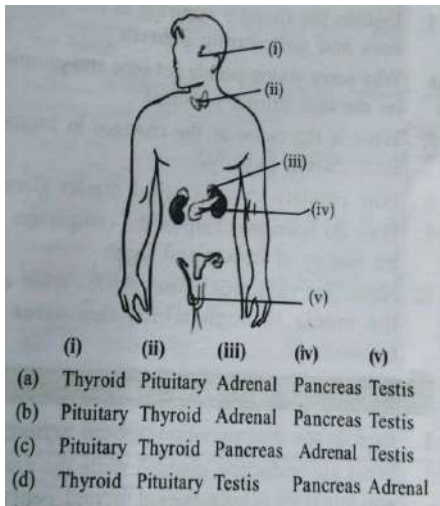
- (a) A-G , B- E ,C-F , D-H
- (b) A-E , B- H ,C- G , D-F
- (c) A-G , B-H ,C-E , D-F
- (d) A-F , B-E ,C-G , D-H

44. The barrier between the protoplasm and the outer environment in an animal cell is
 (a) Tonoplast
 (b) Nuclear Membrane
 (c) Cell Wall
 (d) Plasma Membrane

45. Which of the following remains absent in prokaryotes?
 (a) Nuclear membrane
 (b) Ribosome
 (c) Cell Wall
 (d) Cell Membrane

46. Main source of Vitamin C is
 (a) Milk
 (b) Citrus Fruits
 (c) Sugarcane Juice
 (d) Dry Fruits

47. The given figure represents the position of various endocrine glands in human body. Select the correctly labelled parts from the codes below



- a. A
- b. B
- c. C
- d. D

48. Which of the following pairs of hormones control the onset of puberty in boys and girls respectively?

- (a) Thyroxine and Insulin
- (b) Estrogen & Progesterone
- (c) Testosterone & Estrogen
- (d) Estrogen and Testosterone

49. Which of the following methods will reduce air pollution?

- (a) Planting Trees
- (b) Use of LPG and CNG
- (c) Use of catalytic converter
- (d) All of these

50. CO_2 , CH_4 , N_2O and CFCs are called green house gases because they absorb

- (a) Ultraviolet radiation
- (b) longwave infrared radiation
- (c) visible light radiation
- (d) X-ray radiation