



weight of the teacher be included, the average rises by 400 gms. Find the weight of the teacher.

- (1) 45 kg (2) 50 kg  
(3) 40 kg (4) None of these

9. The six faces of a die have been marked with alphabets A, B, C, D, E and F respectively. This die is rolled down three times. The three positions are shown as :



(i)



(ii)



(iii)

Find the alphabet opposite A.

- (1) B (2) E  
(3) D (4) None of these

10. 30% of 140 = ? % of 840

- (1) 5 (2) 15  
(3) 24 (4) None of these

### GENERAL SCIENCE

11. A lake is surrounded by hills covered with trees and shrubs. Which statement correctly describes how a change to the plants in this area will affect this environment?

- (1) Adding plants to the hillsides will increase sedimentation in the lake  
(2) Adding plants to the edge of the lake will increase erosion by the lake  
(3) Removing plants from the hillsides will increase erosion on the hills  
(4) None of these

12. A person of which of the following blood groups can donate blood to any group

- (1) A (2) AB  
(3) O (4) None of these

13. Which element is most abundant in universe?

- (1) Hydrogen (2) Helium  
(3) Carbon (4) None of these

14. Which of the following is not true?

- (1) Burning of coal releases  $\text{SO}_2$   
(2) Acid rain is harmful to crops  
(3) CNG is a clean fuel  
(4) None of these

15. Oxides of non metals are \_\_\_\_\_ in nature

- (1) Basic (2) Acidic  
(3) Neutral (4) All of these

16. Which one of the following gas burns with the “pop” sound?

- (1) Oxygen (2) Hydrogen  
(3) Chlorine (4) None of these

17. Which of the following can be beaten into thin sheets?

- (1) Zinc (2) Phosphorus  
(3) Sulphur (4) None of these

18. Non metals are used in-

- (1) Aeroplanes (2) making machinery  
(3) Fertilisers (4) None of these

19. Which one of the following are very reactive non metals

- (1) Sodium (2) Potassium  
(3) Phosphorous (4) None of these

20. Which one of the following metal is used in thermometers?

- (1) Copper (2) Mercury  
(3) Aluminium (4) None of these

21. Which one of the following is used in crackers?

- (1) metals (2) Semi metals  
(3) Non-metal (4) All of these

22. Hydrogen gas is produced when metal react with

- (1) Acid (2) Base  
(3) Salt (4) None of these

23. Heat conduction is the property of

- (1) Non-metal (2) Metal  
(3) Metalloids (4) All of these

24. What causes light to become dimmer with distance?

- (1) Diffraction and scattering  
(2) Refraction and scattering  
(3) Absorption and scattering  
(4) None of these

25. Which of these is needed to measure the mass of a rock?

- (1) A balance (2) A barometer  
(3) A metric ruler (4) None of these

26. Chipko movement is concerned with

- (1) Conservation of natural resources  
(2) Plant/forest conservation  
(3) Plant hybridization  
(4) None of these

27. Match List I with List II and select the correct answer using the codes given below the lists

#### List – I

- a. Melting of ice  
b. Heat coming from the Sun  
c. Air circulation from sea level to higher altitudes  
d. Heating of a metal rod by keeping one end of it in a flame

#### List – II

1. Radiation  
2. Convection  
3. Latent heat  
4. Conduction

#### a b c d

- (1) a1 b2 c3 d4 (2) a3 b1 c2 d4  
(3) a4 b1 c3 d2 (4) None of these

28. Which metal is present in the human body in greater percentage?

- (1) Calcium (2) Sodium  
(3) Potassium (4) None of these

29. If a piece of rock is brought from the moon to the Earth, its

- (1) Volume, density and weight will remain the same as it was on the moon  
(2) Volume and weight will remain the same as it was on the moon  
(3) Volume and density will remain the same as it was on the moon  
(4) None of these

30. Plant, soil & decomposers in a forest are

- (1) independent of each other  
(2) interdependent on each other  
(3) varies from region to region  
(4) None of these

31. The various organised structures present in the cytoplasm are called organelles. Which of the following organelles is responsible for the release of energy to support cell activities?

- (1) Mitochondrion (2) Endoplasmic reticulum  
(3) Vacuole (4) None of these

32. Animals and plants get their food in different ways. Animals usually ingest their food, while plants must produce their own food. The process through which plants produce their food is called \_\_\_\_\_

- (1) respiration (2) photosynthesis  
(3) pollination (4) None of these

33. Choose the odd one out?

- (1) common cold (2) chicken pox  
(3) fracture (4) None of these

34. Place the following in correct order.

- (1) organism, cell, tissue, organ  
(2) cell, tissue, organ, organism  
(3) organ, tissue, cell, organism  
(4) None of these

35. The crops grown during October-March are called

- (1) Kharif crops (2) Rabi crops  
(3) Both (1) & (2) (4) None of these

36. Cereals are \_\_\_\_\_

- (1) Grains mostly obtained from grasses  
(2) Vegetables  
(3) Animal products  
(4) None of these

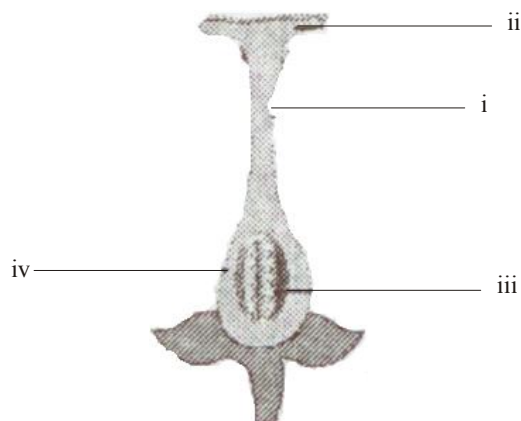
37. Match the following

- A. Retting (i) Wool  
B. Shearing (ii) Silk  
C. Ginning (iii) Jute  
D. Sericulture (iv) Cotton

**A B C D**

- (1) A(ii) B(i) C(iv) D(iii) (2) A(ii) B(iii) C(iv) D(i)  
(3) A(iii) B(i) C(iv) D(ii) (4) None of these

38.



Which labelled structure illustrates the part where pollen grains germinate to give pollen tube?

- (1) i (2) ii  
(3) iii (4) None of these

39. Which of the following is special structure present in parasites?

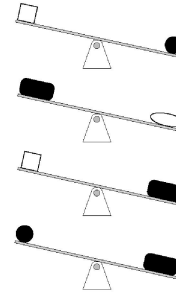
- (1) horns (2) haustoria  
(3) dodder (4) None of these

40. Organism that obtains its nourishment in the same manner as plant exhibits

- (1) holozoic nutrition (2) holophytic nutrition  
(3) saprophytic nutrition (4) None of these

### EtG INTERACTIVE SECTION

41.



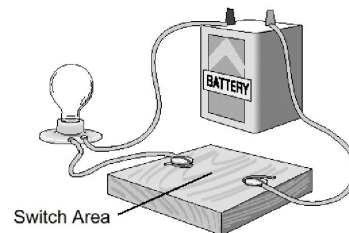
Which one of the above objects is heaviest?

- (1) (2)   
(3) (4)

42. Which of these best shows a change from solar energy to chemical energy?

- (1) Evaporation of water  
(2) Heating of pavement  
(3) Photosynthesis in leaves  
(4) Formation of rainbows

43.



#### Light Produced by Closed Circuit

Switch Material	Light Produced			
	Trial 1	Trial 2	Trial 3	Trial 4
Glass Fiber	None	None	None	None
Steel Nail	Bright	Dim	Very Bright	Bright
Aluminum Foil	Very Bright	Bright	Very Bright	Very Bright
Pencil Lead	Dim	Dim	Dim	Dim

According to these data, which material is the poorest electrical conductor?

- (1) Glass (2) Steel  
(3) aluminum (4) Pencil lead

44. Which of the following statements is false?

- (1) When a magnet is broken into 2, 2 new magnets are formed  
(2) Magnets can be made by passing current through a coil  
(3) Iron & Nickles are the only magnetic substances  
(4) Magnets are widely used to make compass.

45. Approximately how much water is present in plants?

- (1) 60% (2) 90%  
(3) 80% (4) None of these

46. a. Light travels in a straight lines  
 b. If the room is dark brownian motion is observed  
 c. This propagation of light is called rectilinear propagation of light.

Which of the following statement is true?

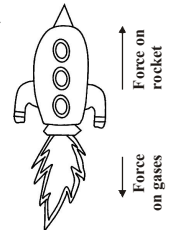
- (1) *a* only
- (2) *a* & *c* only
- (3) *a* & *b* only
- (4) All of these



47. The shape of the flame front in zero gravity will be \_\_\_\_?
- (1) spherical
  - (2) linear
  - (3) cylindrical
  - (4) None of these

48. This diagram shows the working of rocket. This is based on Newton's which law?

- (1) Newton's first law of motion
- (2) Newton's third law of motion
- (3) Newton's second law of motion
- (4) None of these



49. Which of the following is false?

- (1) The luminous intensity of image is proportional to that of object
- (2) It can be used for transparent object as well
- (3) It can be used only for right objects
- (4) None of these

50. How can a mixture of water & common salt be separated?

- (1) by evaporation
- (2) by condensation
- (3) by sublimation
- (4) None of these



**END OF THE EXAM**