

38. When electric current passes through a wire, the amount of heat produced depends on its
(A) material and length
(B) length and thickness
(C) material and thickness
(D) all the above
39. i. Glucose $\xrightarrow{\text{with } O_2}$ $CO_2 + H_2O + E$
ii. Glucose $\xrightarrow{\text{without } O_2}$ alcohol + $CO_2 + E$
iii. Glucose $\xrightarrow{\text{without } O_2}$ Lactic acid + E
E represents energy.
Choose the correct option.
(A) i is anaerobic respiration.
(B) ii and iii are anaerobic respiration.
(C) i and ii are anaerobic respiration.
(D) i and iii are anaerobic respiration.
40. Vicuna gives us the softest coat cloth in the world. It belongs to the
(A) sheep family (B) yak family
(C) camel family (D) goat family
41. In $FeSO_4(aq)$, the symbol aq stands for
(A) aqueous (B) aquatic
(C) aquarium (D) acidic nature
42. What determines the direction of heat?
(A) pressure (B) melting point
(C) freezing point (D) degree of hotness
43. Match the following.
Column A Column B
a) lactic acid i) spinach
b) tartaric acid ii) amla
c) oxalic acid iii) curd
d) acetic acid iv) unripe mango
e) ascorbic acid v) vinegar
(A) a b c d e (B) a b c d e
iii iv ii v i iii iv i v ii
- (C) a b c d e (D) a b c d e
v iv i iii ii iii i iv v ii
44. Which layer of the soil is rich in minerals?
(A) A-Horizon
(B) B-Horizon
(C) C-Horizon
(D) D-Horizon
45. Nephridiopores are found in
(A) earthworm (B) kidney
(C) cockroach (D) Malpighian tubules
46. Choose the correct arrangement of the soil types in terms of particle size.
(A) sand > clay > silt
(B) sand > silt > clay
(C) clay > sand > silt
(D) silt > clay > sand
47. Which lens is used to see distant objects?
(A) concave lens (B) convex lens
(C) both A and B (D) none of the above
48. The chemical formula of alum is
(A) $K_2SO_4Al_2(SO_4)_3 \cdot 24H_2O$
(B) $K_2SO_4Al_3(SO_4)_2 \cdot 24H_2O$
(C) $K_2SO_4Al_4(SO_4)_2 \cdot 24H_2O$
(D) $K_2SO_4Al_2(SO_4)_3 \cdot 24H_2O$
49. In India, the winds spin
(A) clockwise (B) anticlockwise
(C) both A and B (D) none of the above
50. What happens in neutralisation reaction?
(A) heat is always evolved.
(B) heat is always absorbed.
(C) no heat is produced.
(D) heat may be produced or absorbed.

1. What is the working principle of electric motor?
(A) interaction between two magnets
(B) interaction between two current carrying conductors
(C) interaction between heat and current
(D) interaction between magnet and electric current
2. What type of pollination occurs in cucumber?
(A) self pollination
(B) cross pollination
(C) both A and B
(D) none of the above
3. The correct order of the arrangement of RBC, WBC and blood platelets in size is
(A) $WBC < RBC < \text{blood platelets}$
(B) $\text{blood platelets} < WBC < RBC$
(C) $\text{blood platelets} < RBC < WBC$
(D) $RBC < \text{blood platelets} < WBC$
4. Frogs and toads undergo
(A) hibernation
(B) aestivation
(C) both A and B
(D) none of the above
5. In plants, xylems and phloems are
(A) reproductive tissues
(B) conducting tissues
(C) respiratory tissues
(D) all the above
6. The function of villi is to
(A) increase the pressure of the blood.
(B) decrease the pressure of the blood.
(C) increase the surface area for absorption of the food.
(D) increase digestion of the food.
7. $NaHCO_3$ is the chemical formula of
(A) baking soda
(B) lime water
(C) urea
(D) washing soda
8. Why does not the blood clot normally within the blood vessels?
(A) due to the presence of haemoglobin.
(B) due to the presence of blood platelets.
(C) due to the presence of heparin.
(D) due to the presence of RBC.
9. In North America, storms are known as
(A) typhoon
(B) cyclone
(C) tornado
(D) none of the above
10. Kangaroo rat is active in the
(A) morning (B) evening
(C) both A and B (D) night
11. Coral root is an example of
(A) autotrophic plant
(B) heterotrophic plant
(C) parasitic plant
(D) symbiotic plant
12. The silk worm secretes a filament made of a ----- which solidifies upon coming in contact with air and becomes silk fibre.
(A) protein (B) carbohydrate
(C) fat (D) mineral

13. If glucose is found in urine, it changes the blue colour of Benedict's solution to
(A) green (B) yellow
(C) orange (D) A or B or C
14. Pulmonary trunk carries
(A) oxygenated blood and is originated from right ventricle.
(B) oxygenated blood and is originated from left ventricle.
(C) deoxygenated blood and is originated from left ventricle.
(D) deoxygenated blood and is originated from right ventricle.
15. The distance between an object and its image in a plane mirror is p units. If the object moves forward towards the mirror by q units, then the distance between the image and the mirror is
(A) $p - 2q$ (B) $\frac{p + 2q}{2}$
(C) $\frac{p - q}{2}$ (D) $\frac{1}{4}(2p - 4q)$
16. Match the following.
Colum A Column B
i) tuber a) garlic
ii) corm b) potato
iii) bulb c) ginger
iv) rhizome d) colocasia
A) i ii iii iv B) i ii iii iv
b d a c b a d c
C) i ii iii iv D) i ii iii iv
c b a d a c d b
17. The time period of a pendulum
(A) increases on increasing the mass of the bob.
(B) decreases on decreasing the mass the
- of the bob.
(C) increases on decreasing the mass of the bob.
(D) does not change on changing the mass of the bob.
18. Which acid is used by the goldsmiths to clean and purify gold and silver?
(A) sulphuric acid (B) hydrochloric acid
(C) nitric acid (D) all the above
19. Choose the incorrect chemical reaction.
(A) $CuSO_4 + Fe \rightarrow FeSO_4 + Cu$
(B) $Mg + O \rightarrow MgO$
(C) $MgO + H_2O \rightarrow Mg(OH)_2$
(D) $CO_2 + Ca(OH)_2 \rightarrow CaCO_3 + H_2O$
20. Which chamber of the ruminant stomach produces gastric juice?
(A) rumen (B) reticulum
(C) omasum (D) abomasum
21. Which symbiotic association is the best way of replenishing the soil with nitrogenous nutrients?
(A) rhizobium and leguminous plants
(B) rhizobium and non-leguminous plants
(C) fungi and leguminous plants
(D) algae and leguminous plants
22. The layer of the forest where trees branch off from the tree trunk is called
(A) canopy (B) crown
(C) understory (D) none of the above
23. The wire used in the fuse is of
(A) high melting point
(B) moderately high melting point

- (C) extremely low melting point
(D) low melting point
24. Respiration in plants occurs throughout the
(A) day (B) night
(C) both A and B (D) none of the above
25. The enzyme rennin is produced by
(A) infant stomach
(B) adult stomach
(C) small intestine
(D) large intestine
26. What is the percentage of water available on the earth in the form of solid?
(A) 3% (B) 0.01%
(C) 2.6% (D) 2%
27. Haemoglobin is found in
i) human blood ii) earthworm blood iii) cockroach blood
(A) i and ii (B) i and iii
(C) i only (D) all the above
28. Which lens and mirror can focus image on a screen?
(A) concave lens and concave mirror
(B) concave lens and convex mirror
(C) convex lens and concave mirror
(D) convex lens and convex mirror
29. How many seconds will be there from the year 2020 to 2029?
(A) 315360000s (B) 315619200s
(C) 315686400s (D) 315362000s
30. Land breeze is observed when
(A) the land mass is hotter than the water body.
(B) the water body is hotter than the land mass.
(C) the land mass and water body are equally hot.
(D) the land mass and water body are equally cold.
31. In sandy soil, the amount of clay is about
(A) two fifth (B) one fifth
(C) two third (D) one tenth
32. A body covers 35m in 7 seconds. The speed of the body in km/hr is
(A) 18 (B) 15
(C) 12 (D) 5
- 33.. Which methods of reproduction are mostly used in fruits and ornamental plants?
(A) stem cutting & grafting
(B) root cutting & layering
(C) grafting & layering
(D) all the above
34. Which plant reproduces from its leaves?
(A) Chrysanthemum
(B) Strawberry
(C) Oxalis
(D) Bryophyllum
35. What is the temperature below which you may be in hypothermia?
(A) 25°C (B) 30°C
(C) 33°C (D) 37°C
36. Pashmina shawl is woven from the fibre obtained from
(A) Merino (B) Angora goat
(C) Kashmiri goat (D) Angora rabbit
37. Which of the following need a material medium for the transfer of heat?
(A) conduction & convection
(B) conduction & radiation
(C) convection & radiation
(D) all the above

27th MVII
(SCIENCE)

Time Allowed 1 hour

Maximum Marks : 100

**Read the following instructions carefully before
you begin to answer the questions.**

1. This booklet contains 50 questions in all.
2. All questions are compulsory and each question carries 2 marks.
3. Before you start to answer the questions you must check up this booklet and ensure that it contains all the pages 4 (four) and see that no page is missing or repeated. If you find any defect in this Booklet, you must replace it immediately.
4. There will **NOT** be any negative marking for wrong answers.
5. You are required to fill the information on the answer sheet which you will get in the examination hall by **H.B. pencil or BALL point pen.**
6. **Answer Sheet** and **Question Paper** will be supplied in examination hall. After the test is over, you should hand over the answer sheet to the invigilator before leaving the room.
7. You should write your **Name, Roll No.**, carefully on the space provided in the answer sheet. Otherwise you will be awarded **ZERO** mark.
8. If you wish to change your answer, **ERASE** completely the darkened circle by using an **ERASER** and then blacken the new circle. If not erased completely, smudges will be left on the erased circle and the question will be read as having two answer and will be ignored for giving any credit.
9. Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.
10. You are not allowed to leave the examination hall until you are advised to do so by the invigilator.