

26thMVIII
(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 7 (Seven) 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(Blue or Black)**.
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., School name** 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 answers and will be ignored for giving any credit. (only for pencil users)
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.

- (1) -

- The chemist who developed the process of pasteurisation was from
(A) Germany (B) France
(C) America (D) England
- The microbe which is mainly used in the commercial production of whisky is
(A) Bacteria (B) Virus
(C) Yeast (D) Fungi
- i) Natural soil is an example of biofertilizer
ii) Cyanobacteria are autotrophic microbes
iii) The vaccine for small pox was discovered in 1789
iv) Antibiotics are also obtained from plants
v) Malaria is a protozoan disease
In the above statements, the number of correct statement(s) is/are
(A) 1 (B) 2
(C) 3 (D) 4
- Which plastic is used for making floor tiles?
(A) PVC (B) Polythene
(C) Bakelite (D) Malamine
- Choose a correct reaction:
(A) $FeSO_4 + Cu \rightarrow CuSO_4 + Fe$
(B) $FeSO_4 + Cu \rightarrow CuSO_4 + FeO$
(C) $CuSO_4 + Fe \rightarrow FeSO_4 + Cu$
(D) $CuSO_4 + Fe \rightarrow FeSO_4 + CuO$
- When magnesium reacts with oxygen a product 'X' is formed. 'X' dissolves partially in water to form a compound 'Y'. Then
(A) X turns red litmus to blue and Y turns blue litmus to red
(B) X turns blue litmus to red and Y turns blue litmus to red
(C) Both X and Y turn blue litmus to red
(D) Both X and Y turn red litmus to blue
- i) Bismuth is a good conductor of heat but not a good conductor for electricity.
ii) Graphite is a good conductor of electricity but also a good conductor of heat.
iii) The order of electrical conductivity of some metals is as follows
silver > copper > gold > aluminium.
iv) Chlorine is a non-metal while phosphorus is a metal.
The number of correct statement(s) is
(A) 1 (B) 2
(C) 3 (D) 4
- Methane is a compound of
(A) Hydrogen and carbon dioxide
(B) Hydrogen and oxygen
(C) Hydrogen and carbon
(D) Nitrogen and oxygen
- Which one of the following fuels has higher calorific value?
(A) coal (B) diesel
(C) kerosene (D) biogas
- The ignition temperature of phosphorus is 35°C which means that if the temperature of the surrounding is above 35°C it catches fire easily without heating. Suppose in a room which is

- (6) -

- (C) i ii iii (D) i ii iii
b c a c a b
- If there is no ozone layer,
(A) the earth could not sustain life.
(B) there is no effect on the living beings.
(C) the human beings and some animals could not survive.
(D) the ultraviolet rays could not reach the surface of the earth.
- The size of the cells of an animal depends on its
(A) body size
(B) function
(C) location in the body
(D) Environment
- Dhananjay buys a bag of seeds of Rabi crop in the month of February from bazaar. In which month will he sow the seeds so as to get the maximum production?
(A) March (B) June
(C) August (D) October
- Which of the following fertilizers is / are nutrient specific?
(i) Urea
(ii) NPK
(iii) Natural fertilizer
(iv) Superphosphate
(A) (i) & (iv)
(B) only (ii) & (iii)
- (C) All the above except (iii)
(D) None of the above except (iii)
- Match column A and B
column A column B
(Disease) (Causative organism)
(a) Avian pox (x) protozoa
(b) coccidiosis (y) fungi
(c) brooder pneumonia (z) virus
(A) a-x, b-y, c-z
(B) a-z, b-y, c-x
(C) a-y, b-x, c-z
(D) a-z, b-x, c-y
- Doppler shift is a term related with
(A) electricity (B) magnetism
(C) sound (D) earthquake
- Match column A and B
column A column B
(cattle name) (species)
a) Murrah x) *Bos taurus*
b) Ongole y) *Bos indicus*
c) Holstein z) *Bubalus bubalis*
(A) a b c (B) a b c
z y x y x z
(C) a b c (D) a b c
z x y y z x

- (5) -

33. Raindrops vary in size from
(A) 0.02 in. to 0.2 in.
(B) 0.03 in. to 0.25 in.
(C) 0.02 in. to 0.39 in.
(D) 0.02 in. to 0.33 in.
34. A boy hears a thunder after five seconds after lightning. How far away from the ground is the lightning happening?
(A) 1.5 km (B) 1.7 km
(C) 2 km (D) 2.3 km
35. The mirror image of the word AMBULANCE is
(A) AMBULANE
(B) ECNALUBMA
(C) ECNALUBMA
(D) ECNALUBMA
36. The distance between a plane mirror and an object which is $d/16$ unit high is $d/8$ unit. If an object which is $d/8$ unit high is placed in the middle of the mirror and the previous object, then the distance between the second object and its image is
(A) $d/16$ (B) $d/32$
(C) $d/8$ (D) $d/4$
37. A beam of light is incident on a spherical mirror perpendicularly at the point of incidence. The sum of the angle of reflection and the angle of incidence is
(A) 0° (B) 90°
- (C) 180° (D) 45°
38. The synodic month and the sidereal month are respectively
(A) 29.5 and 27.3 days long
(B) 27.3 and 29.5 days long
(C) 29 and 27 days long
(D) 29.5 and 28 days long
39. The rotational axis of the Earth is tilted from the revolution axis by (in degree)
(A) $49/2$ (B) $185/8$
(C) $141/6$ (D) $70/4$
40. The third largest planet by mass is
(A) Earth (B) Saturn
(C) Uranus (D) Neptune
41. How many times can paper be recycled for use ?
(A) three to four times
(B) four to six times
(C) five to seven times
(D) six to eight times
42. The world's first oil well was drilled in
(A) England
(B) USA
(C) Germany
(D) France
43. Match column A and column B
- | column A | column B |
|--------------|----------------|
| i) Propane | a) C_3H_8 |
| ii) Ethane | b) C_4H_{10} |
| iii) Butane | c) C_2H_6 |
| (A) i ii iii | (B) i ii iii |
| a b c | a c b |

- (2) -

- completely vacuum the phosphorus is heated upto 45°C then
(A) the phosphorus catches fire easily with a residue
(B) the phosphorus catches fire without a residue
(C) the phosphorus catches fire when the temperature is at 35°C
(D) the phosphorus will not catch fire
11. The world of conservation strategy of wildlife was prepared jointly in 1980 by
(A) IUCN and UNEP
(B) IUCN, WWF and UNO
(C) IUCN, UNEP and WWF
(D) IUCN, UNEP, WWF and UNO
12. Trout is an example of
(A) Diadromous fish
(B) Potamodromous fish
(C) Oceanodromous fish
(D) Both A and B
13. In India the percentage of forest owned by the government, private individuals and corporate bodies are respectively
(A) 95%, 4% and 1%
(B) 95%, 1% and 4%
(C) 90%, 3% and 7%
(D) 90%, 7% and 3%
14. Golden cat is a/an
(A) Endangered species
(B) Vulnerable species
(C) Rare species
(D) Threatened species
15. The cell which helps in controlling and coordinating the working of different parts of the body is
(A) nerve cell
(B) epithelial cell
(C) mesophyll cell
(D) white blood cell
16. Chromosomes can be seen only when the cell
(A) respire (B) grows
(C) divides (D) excretes
17. The number of wrong statements in the following statements is
1) Both plant and animal cells have plasma membrane.
2) Both plant and animal cells have large vacuoles.
3) Both plant and animal cells have plastids.
4) Cell wall gives support to both plant and animal cell.
5) A typical eukaryotic cell measures $10\text{-}20\ \mu\text{m}$.
6) All living organisms have definite shape.
(A) 2 (B) 3
(C) 4 (D) 5
18. Match the following :
(i) liver (a) endocrine gland
(ii) thyroid (b) exocrine gland
(iii) adrenal
(iv) pancreas

- (3) -

- (P) i ii iii iv (Q) i ii iii iv
b a a b b a a a
(R) i ii iii iv (S) i ii iii iv
a b a b b a b a

- (A) P only (B) Q only
(C) P and Q (D) P and S

19. A man blames his wife for the birth of a baby girl. Actually, who is the person who determines the sex of the baby?

- (A) man (B) wife
(C) grandfather of the girl
(D) grandmother of the girl

20. In binary fission,

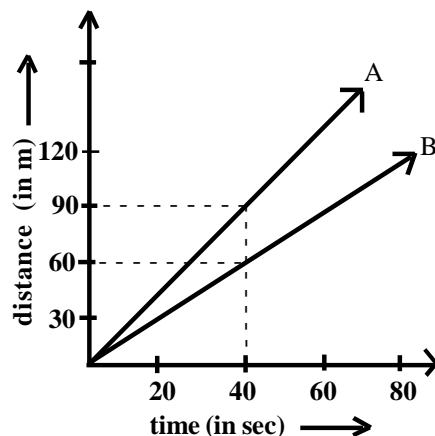
- (A) cytoplasm division precedes nuclear division and cell membrane division.
(B) nuclear division precedes the cytoplasm division and cytoplasm division precedes cell membrane division.
(C) nuclear division precedes the cell membrane division and cell membrane division precedes cytoplasm division.
(D) cell membrane division precedes the cytoplasm division and cytoplasm division precedes nuclear division.

21. In reproduction of organisms,

- (A) only one parent may be needed
(B) two parents may be needed
(C) only two parents are needed for all organisms

- (D) both (A) and (B)

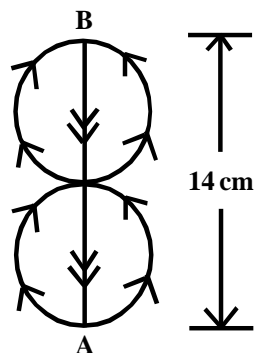
22. The distance time graphs of two bodies A and B are shown below :



The difference in the speed of the body A and the speed of the body B in Km/hr is

- (A) 0.75 (B) 2.7
(C) 4 (D) 10

- 23.



- (4) -

An insect starting from A moves along the two semicircles on the left side of the line AB. Then it moves downward along the diameters of the two circles.

Again from the point A it moves upward along the other two semicircles and moves downward along BA. The two circles have the same radii. If the speed of the insect is 11.6 cm/s, find the time taken by the insect to complete the whole path.

- (A) 5 secs (B) 6 secs
(C) 8 secs (D) 4 secs

24. When we walk on a too slippery road, we put some sand or rice husk on the road to

- (A) increase friction
(B) reduce friction
(C) support our body weight
(D) both (A) and (C)

25. Digital and U-tube manometers measure

- (A) force (B) pressure
(C) density (D) both (B) & (C)

26. The weight of air in a column of height of the atmosphere and area 10cm x 10cm is as large as

- (A) 10kg (B) 10² kg
(C) 10³ kg (D) 10⁴ kg

27. P is the pressure when a force 'f' is exerted on a face of a cube whose length of an edge is 'a'. If the same force is exerted on a face of a cube whose length of an edge is '2a', then

the pressure exerted on the face of the second cube is

- (A) $f/2a$ (B) $f/4a$
(C) $p/2$ (D) $p/4$

28. The frequency of the sound wave in vacuum is

- (A) 0 (B) 20Hz
(C) 20.000 Hz (D) 40Hz

29. The term 'Supersedure' is related with

- (A) fish (B) honey bee
(C) cattle (D) birds

30. Which of the following is ultrasonic?

- (A) 5 KHz (B) 15 KHz
(C) 40 Hz (D) 25 KHz

31. What happens to the electrical conductivity of ammonia solution if it is mixed with vinegar solution?

- (A) increases
(B) remains unchanged
(C) decreases
(D) decreases as the ions vanish after combination of ions

32. A magnetic compass needle is placed near a current carrying coil. Then which of the following is the correct statement :

- A) the compass needle rotates as long as the current passes through the coil
B) the compass needle deflects
C) there is no change in the position of the needle
D) the compass needle moves back and forth