

**MODERN CONVENT SCHOOL**  
**SECTOR 4, DWARKA**  
**ANNUAL EXAMINATION (2023—24)**

**CLASS-VII**

**Subject: Science**

**DATE: 23.02.2024**

**TIME: 2.30 Hrs**

**M.M.: 60**

**No. of pages:3**

**GENERAL INSTRUCTIONS: -**

1. This paper is divided into 5 sections: A, B, C, D, E.
2. Section A comprises of MCQs. Write the correct answer along with correct option in your answer sheet
3. Section B comprises of Very short questions of 1 mark each.
4. Section C comprises of Short Answer Questions of 2 marks and 3 marks.
5. Section D comprises of Long Answer Questions of 5 marks each.
6. Section E comprises of 2 case study questions of 4 marks each
7. Draw neat and well labelled diagrams with pencil wherever required.

**SECTION A**

**Q1. MULTIPLE CHOICE QUESTIONS**

**(1x16=16)**

- I). Spiracles on the body of insect are connected to a network of thin air tubes called  
(a) lungs (b) tracheae (c) gills (d) blow holes
- II). The raw material for cellular respiration is  
(a) glucose (b) sucrose (c) fructose (d) starch
- III). The lower chambers of heart is called  
(a) auria (b) ventricles (c) aorta (d) vena cava
- IV). They are pipe-like consisting of a group of specialised cells. They transport food and form a two-way traffic in plants. Which of the following terms qualifies for the features mentioned above?  
(a) Xylem tissue (b) Vascular tissue (c) Root hairs (d) Phloem tissue
- V). Which of the following statements is/are true for sexual reproduction in plants?  
(a) Plants are obtained from seeds (b) Two plants are always essential  
(c) Fertilisation can occur only after pollination (d) Only insects are agents of pollination
- Choose from the options given  
(a) (i) and (iii) (b) only (i) (c) (ii) and (iii) (d) (i) and (iv)
- VI). Seeds of drumstick and maple are carried to long distances by wind because they possess  
(a) winged seeds (b) large and hairy seeds (c) long and ridged fruits (d) spiny seeds
- VII). The distance-time graph for a vehicle standing on a road side will be  
(a) straight line inclined by some angle to x-axis (b) straight line parallel to x-axis  
(c) straight line parallel to y-axis (d) None of the above
- VIII). Which one records the distance travelled by a vehicle?  
(a) Speedometer (b) Manometer (c) Motometer (d) Odometer

245  
1200  
60

IX). Which of the following characteristic is most suitable material for making an electromagnet

- (a) Brass      (b) Aluminium      (c) Iron      (d) Steel

X). If the number of turns in the coil of an electromagnet is more, the strength of the electromagnet will be

- (a) lesser      (b) greater      (c) double      (d) same

XI). A virtual image

- (a) can be formed on the screen      (b) cannot be formed on the screen  
(c) is formed only by a plane mirror      (d) is formed only by the convex mirror

XII). If an object is placed at a distance of 1 m in front of a plane mirror, the distance between the object and the image formed by the mirror will be.

- (a) 2 m      (b) 1 m      (c) 0.5 m      (d) 0.25 m

XIII). Which of the following statement IS NOT correct?

- (a) Forests protect the soil from erosion  
(b) Plants and animals in a forest are not dependent on one another  
(c) Forests influence the climate and water cycle  
(d) Soil helps forests to grow and regenerate

XIV). Which of the following IS NOT a correct statement?

- (a) Forest trees are cut down to obtain timber      (b) Forest trees are cut down to obtain paper  
(c) Forest trees are cut down to obtain natural rubber      (d) Forest trees are cut down to obtain firewood

XV). Which of the following organisms produce biogas from sludge in the digester tank of a wastewater treatment plant?

- (a) Anaerobic bacteria      (b) Fungi      (c) Aerobic bacteria      (d) Protozoa

XVI). Sewage is mainly a

- (a) liquid waste      (b) solid waste      (c) gaseous waste      (d) mixture of solid and gas

### SECTION B

Q2. Ronita wrote a food chain in the following way:

(1)

Frog → Eagle → Insects → Grass → Snake

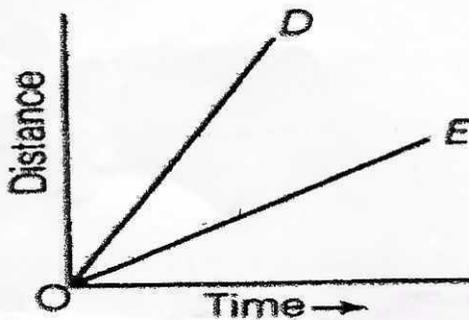
The chain is not in the correct order. Help her to write the food chain correctly.

Q3. Mention the mode of reproduction in the following plants .

(1x3=3)

- a) Ginger  
b) Mustard  
c) Fern

Q4. The following figure shows the distance-time graph for the motion of two objects D and E. Which one of them is moving slower? Explain. (1)



Q5. Give reason:

(1X3=3)

- (a) The Eucalyptus trees are planted along sewage ponds.
- (b) Electric fuse required in all the electrical appliances.
- (c) Our nostrils has hair and mucous.

Q6. Write one difference between each of the following :

(1x4=4)

- (a) convex and concave lens.
- (b) arteries and veins
- (c) breathing and respiration
- (d) xylem and phloem

### SECTION C

Q7. Why is vegetative propagation a preferred method of asexual reproduction?

Q8. Minal takes 80 minutes from her house to reach her college on scooter. If the scooter has a speed of 20m/s, calculate the distance between her college and house in kilometers. (2)

Q9. State any four characteristics of the image formation by plane mirror. (2)

Q10. "Forest prevents floods" Justify the statement. (2)

Q11. How do Spirogyra and fungus reproduce? Explain with the help of well labelled diagrams. (3)

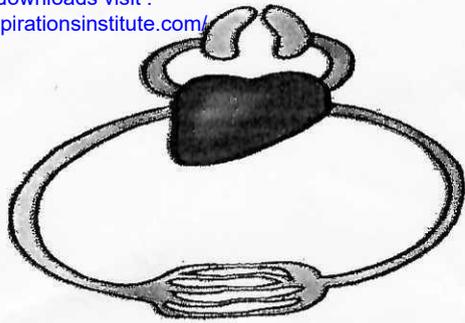
Q12. Draw a well labelled diagram of human excretory system. (3)

### SECTION D

Q13. Draw the given diagram of circulation of blood in human and label the following (3+2=5)

- a) Capillaries b) Artery c) Pulmonary vein d) Lungs e) Pulmonary artery

Also draw suitable arrows marking the direction of blood flow.



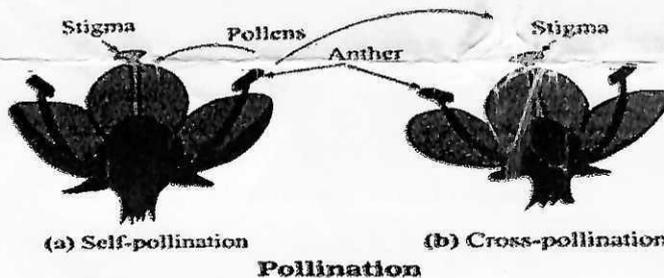
Q14. Explain step wise treatment of waste water for removal of physical ,chemical and biological matter . (5)

**SECTION E (Case based questions)**

Q15. Rubi participated in a 400 m race competition held at her school and won the race. When she came home she had mixed feelings of joy and pain as she had cramps in her leg muscles. After a massage, she was relieved of the pain. Answer the following questions related to the situation.

- (a) What can be the possible reasons for the pain in her legs? (1.5+1+1.5=4)
- (b) Why did she feel comfortable after a massage?
- (c) Name the end products of anaerobic respiration in yeast.

Q16. Observe the following figure and answer the questions given below: (2+1+1=4)



- (a) Define self pollination and cross pollination.
- (b) Flowers given in the above figure are unisexual or bisexual.
- (c) Write one example each of unisexual and bisexual flowers.