



**INDIAN SCHOOL SOHAR**  
**TERM II EXAMINATION (2019 -20)**  
**SUBJECT: SCIENCE**

CLASS: VII

Max. Marks: 80

DATE: 03/03/2020

Duration: 3Hrs

**General Instructions:-**

- i. The question paper comprises of **three** Sections **-A, B and C**. Attempt **all** the sections.
- ii. The question paper consists of a total of 33 questions. **All** questions are compulsory.
- iii. All questions in Section **A** are **one-** mark questions comprising MCQ, VSA type and assertion and reasoning type questions. They are to be answered in one word or in one sentence.
- iv. All questions in Section **B** are **three-**mark short-answer type questions. These are to be answered in about 50-60 words each.
- v. All questions in Section **C** are **five-**mark, long-answer questions. These are to be answered in about 80-90 words each.
- vi. Internal choice is given in each section.
- vii. Wherever necessary the diagrams drawn should be neat and properly labelled.

**SECTION A**

**1. Answer the following questions 1(a) to 1(d) on the basis of your understanding of the following paragraph and the related studied concepts.**

Newton showed that a glass prism can produce a spectrum. When a narrow beam of light passed through a glass prism, it splits into a band of seven colours called the spectrum. The colour sequence can be remembered by the acronym VIBGYOR. This shows that white light is a combination of seven separate colours. The rainbow forms in the sky is due to dispersion of sunlight after rain.

- |  |   |
|--|---|
| 1(a) State the name of the band of seven colours dispersed from white light.   | 1 |
| 1(b) What is dispersion of light?  | 1 |
| 1(c) Write the natural phenomenon, which is caused by the dispersion of light.   | 1 |
| 1(d) Name the scientist who discovered that white light is a combination of seven colours.   | 1 |
| 2. Impure copper sulphate powder can be purified by the process of _____.  |   |
| a) galvanization      b) evaporation      c) crystallization      d) heating   | 1 |
| 3. The water seeps easily through a _____.   |   |
| a) pukka floor      b) grass lawn      c) cement floor      d) marble floor  | 1 |
| 4. In which of the following, electromagnets are <b>not</b> used?  |   |
| a) Crane      b) Electric bell      c) Toy car      d) Electric bulb   | 1 |
| 5. What is the basic unit of speed?  |   |
| a) m/s      b) km/s      c) m/h      d) km/h   | 1 |
| 6. During heavy exercise, we get muscle cramps in the legs due to the accumulation of _____.   |   |
| a) carbon dioxide      b) lactic acid      c) alcohol      d) formic acid  | 1 |
| 7. Acidic solutions turn _____   |   |
| a) red litmus to blue      b) turmeric to red      c) china rose to green      d) blue litmus to red   | 1 |
| 8. Sam is observing his image in a plane mirror. The distance between the mirror and his image is 5m. If he moves 1m towards the mirror, then the distance between Sam and his image will be _____ |   |
| a) 4m      b) 6m      c) 5m      d) 8m   | 1 |

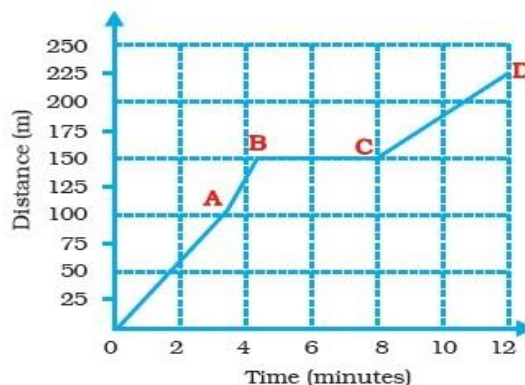
9. Which of the following is a water borne disease?  
 a) Influenza      b) Cholera      c) Malaria      d) Chicken pox 1
- For question numbers 10 and 11, two statements are given- one labeled Assertion (A) and the other labeled Reason (R). Select the correct answer to these questions from the codes (i) , (ii), (iii) and (iv) as given below.**
- (i) Both (A) and (R) are true and (R) is the correct explanation of the Assertion.  
 (ii) Both (A) and (R) are true but (R) is not the correct explanation of the Assertion.  
 (iii) (A) is true but (R) is false.  
 (iv) (A) is false but (R) is true.
10. **Assertion:** We get relief from cramps after a hot water bath or a massage. 1  
**Reason:** The cramps occur when muscle cells respire aerobically.
11. **Assertion:** The plane mirror is used as reflectors of torches. 1  
**Reason:** The image formed by a plane mirror is always virtual.
12. 'We should not release chemical waste into the drains.' Comment. 1
13. Write the principle of working of an electric heater? 1
14. What is the shape of distance-time graph for an object whose speed keeps on changing? 1
15. Explosion of crackers considered as chemical change. Give reason? 1
16. State the function of spiracles in cockroaches. 1
17. Recycling of papers help in the conservation of forest. Justify. 1

### SECTION B

- 18.(a) What is ground water? Name a traditional way of water storage and collection. 3  
 (b) Explain any one factor responsible for the depletion of water table.
- 19.(a) Mohan takes 15 minutes from his school to reach his house on a bicycle. If the bicycle has a speed of 3m/min, calculate the distance between his school and the house.  
 (b) What is the time period of a simple pendulum? What does the time period of simple pendulum depend upon?

**OR**

Reema goes to the ground to play cricket. The distance –time graph of his journey from her home to the ground is given in the figure.



- (a) What does the graph between points B and C indicates about the motion of Reema?  
 (b) What is the distance travelled by Reema at 6 minutes?  
 (c) Find out average speed of Reema from the graph. 3

20. Name the following:

- (a) The image which cannot be obtained on a screen.
- (b) The lens which can be used to burn a piece of paper with the help of sunlight.
- (c) The mirror which can form real image.

3

21. Observe the figure given below and answer the following questions.



- (a) Name the device shown in the above diagram.
- (b) Mention the importance of this device in electrical circuits.
- (c) Which property of a conducting wire is utilized in making this device?

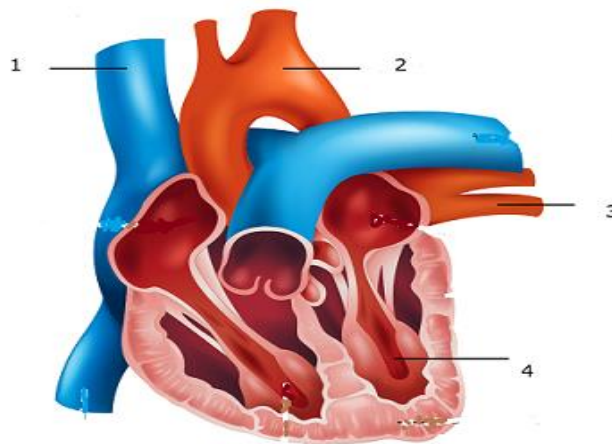
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22. (a) Draw a neat labeled diagram of the female reproductive parts of a flower.

- (b) What is fertilization? Which part of the flower will develop into fruit after fertilization?

3

23. (a) Observe the diagram given below and label the parts 1-4.



- (b) Why do arteries have thick elastic walls?

**OR**

- (a) How do gills help a fish to breathe?
- (b) What will happen to (i) Ribs and (ii) Diaphragm during inhalation?

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24. (a) When few drops of phenolphthalein is added to sample 'A' it turns to pink, but the pink colour disappears when sample 'B' is added to it. Identify the nature of samples 'A' and 'B'.

- (b) An antacid tablet is taken when you suffer from acidity. Why?

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25. (a) When baking soda is mixed with lemon juice, bubbles are formed with the evolution of a gas. Write the name of the gas evolved. What type of change is it?

- (b) Write the word equation for rusting of iron.
- (c) Classify the following as physical or chemical changes.

- i. Souring of milk
- ii. Melting of wax

3

26. Justify the following statements:-

- (a) Forests help to raise the water table.
- (b) Every part of the forest is dependent on each other.
- (c) Forests are known as 'green lungs'.

3

27. (a) Write two examples of low cost onsite sewage disposal systems.  
 (b) What is the role of anaerobic bacteria in WWTP?  
 (c) What is meant by sewerage?

3

**SECTION C**

28. (a) Differentiate between breathing and respiration. (2 points)  
 (b) Write the word equation representing:  
 i. Aerobic respiration in body cells.    ii. Anaerobic respiration in muscles after heavy exercise.  
 (c) Mention the respiratory organ of the following organisms.  
 i. Insects    ii. Earthworm

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29. (a) How does the heart avoid the mixing of oxygen rich blood and carbon dioxide rich blood?  
 (b) How does transportation of water and minerals take place in the plants? (2 points)  
 (c) What is pulse rate? Mention the pulse rate of a person at rest.

**OR**

Draw neat diagram of human excretory system and label the following parts.

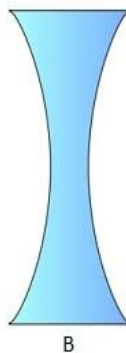
- i. Which stores urine.    ii. Which transport urine from kidneys.  
 iii. Which removes urine from the body.    iv. Which filter urine.

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30. (a) Show the shape of the distance time graph for the motion in the following cases.  
 i. A bus moving with a constant speed.    ii. A bicycle is parked on a side road.  
 (b) Name the device used to record the distance directly in km/h in vehicles.  
 (c) The distance between two stations is 350,000m. A train takes 5 hours to cover this distance. Calculate the speed of the train in km/h.

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31. (a) Identify the figures **A** and **B**. State the characteristics of image formed by them.



- (b) State one use of the above figures.

**OR**

- (a) Briefly explain the process of reproduction in yeast. (3 points)  
 (b) What are the advantages of vegetative propagation in plants? (2 points)

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32. (a) Observe the following figure and identify. What is the importance of this process?



(b) Describe the steps involved in getting clarified water from wastewater.

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33.(a) Complete the following:

i. Magnesium + -----  $\longrightarrow$  Magnesium oxide

ii. Carbon dioxide + Lime water  $\longrightarrow$  ----- + -----

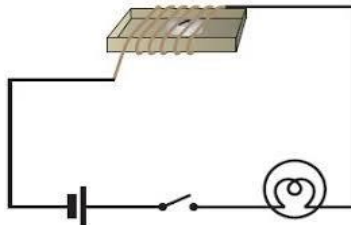
(b) What happens when magnesium oxide is dissolved in water? Mention the nature of the substance formed.

(c) What is the chemical composition of the following?

- i. Calamine solution    ii. Slaked lime    iii. Baking soda

**OR**

(a) A circuit is connected as shown below. A compass needle is placed inside the box around which the wire is wound.



- i. What happens to the direction of the needle if the switch is put 'ON'?
- ii. If the switch is put 'OFF', how does the direction of the needle change?
- iii. What does this experiment indicate? Give one application of this experiment.
- iv. What happens if a bar magnet is brought near the compass needle?

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