AMRITA VIDYALAYAM

ANNUAL EXAMINATION 2019 - 20

Class: VII Marks: 80
Time: 3 hrs

SCIENCE

GENERAL INSTRUCTIONS:

- 1. This question paper comprises of three sections A, B and C. You have to attempt all sections.
- 2. All questions are compulsory.
- 3. Internal choice is given in each section.
- 4. Questions in Section A are 1 mark questions comprising MCQ and VSA type questions. These are to be answered in one word or in one sentence. Questions 13 and 14 have four parts of 1 mark each.
- 4. Questions in Section B are 3 marks short answer type questions. These are to be answered in about 50-60 words each.
- 5. Questions in Section C are 5 marks questions. These are to be answered in 80-90 words.

		SECTION - A	
1.	In a battery, the positive termina	al of one cell should be connected to the positive terminal of	
	another cell. State whether this	statement is true or false.	
2.	Write down the formula for finding the percolation rate of soil.		
3.		r into the ground is called	
	(infiltration, precipitation, evaporation)		
4.	Exchange of gases in plants tak	es place through	
	(stomata, root, entire leaf surface	ee)	
		OR	
	Exchange of gases in insects takes place through		
	(gills, spiracles, lungs)		
5.	The image formed by a plane m	nirror is as much the mirror as the object is in front of i	
6.	What is the term for distance covered by a body in unit time?		
7.	What is aquifer?		
8.	Name the muscular part of the body present in the chest cavity which helps air to be breathed		
	in and out.		
9.	The rotting dead matter in the soil is called		
10.	On what factors does the amount of heat produced in a wire depend?		
11.	Name the tiny filtering units of the kidney.		
12.	Which type of mirror can form a real image?		
	(plane, concave, convex)		
13.	Match the following.		
	a) Ammonium hydroxide	amla	
	b) Calcium hydroxide	indicator	
	c) Ascorbic acid	lime water	
	d) Turmeric	window cleaner	

- 14. Give one example for each of the following.
 - a) Seed dispersal by water.
 - c) Vegetative propagation by stem.

- b) Unisexual flower.
- d) Asexual reproduction by budding.

SECTION - B

15. Explain how soil is formed.

OR

Sketch the cross-section of soil and label the various layers.

- 16. Write any three differences between concave and convex mirrors along with their diagrams.
- 17. Riya participated in a 400 metre race held at her school and won the prize. 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 reason for the pain in her legs?
 - b) Why did she feel comfortable after a massage?
- 18. Describe the process of neutralisation with the help of a suitable example.
- 19. Draw a distance-time graph from the following data (table) showing the distance covered by a racing car in fixed intervals of time. Calculate the speed of the car.

Distance from starting point (m)
0
15
30
45
60
75

OR

A cheetah runs a distance of 200 metres in 10 seconds. What is the speed of the cheetah in m/s and km/hr?

- 20. Sketch and label a male and female reproductive part of a flower.
- 21. Write an activity to prove that soil contains water.
- 22. You are observing a drop of blood under a microscope. Name the blood cells that you can see in blood. Write down the functions of each.

OR

Give reasons.

- a) Though pulmonary artery carries carbon dioxide rich blood, it is still called an artery and not a vein.
- b) Arteries have thick elastic walls.
- c) Blood of humans is red in colour.
- 23. Roads generally have speed limits. It is against the law to drive a vehicle above the speed limit.
 - a) Why do you think this is so?
 - b) What is likely to happen if speed limits are not obeyed?
 - c) Mr. Nair is a gentle driver and obeys all traffic and road rules. What can you say about Mr. Nair?
- 24. a) Define the two effects of electric current with two examples each.
 - b) How is a fuse wire different from an MCB?

SECTION - C

- 25. Describe the working of a simple electric bell with diagram.
- 26. a) Write the characteristics of an image formed by a plane mirror.
 - b) What do you mean by lateral inversion?
 - c) Why is 'ambulance' written laterally inverted?

OR

Explain the set-up used by Newton to obtain a spectrum with a diagram.

- 27. a) What is pollination? What are the two types of pollination? Explain.
 - b) Define fertilization. What are the changes taking place after fertilization?

 $\cap R$

- a) Explain the three methods of seed dispersal with example.
- b) What are the advantages of seed dispersal?
- 28. a) In what ways are the xylem and phloem important for transportation of materials in plants?
 - b) Name the different parts of human excretory system. Write the functions of each.
- 29. Give reason.
 - a) An antacid tablet is taken when you suffer from acidity.
 - b) Calamine lotion is applied on the skin when an ant bites.
- 30. Briefly describe the factors responsible for the depletion of water table.

OR

- a) Define a water cycle.
- b) What happens to rain water once it falls on the earth?
- c) What are the different states of water? How are they seen at the different regions on earth?