

# AMRITA VIDYALAYAM

## ANNUAL EXAMINATION 2017 -'18

Class :VIII

Marks : 80

Time : 3 hrs

### SCIENCE

#### *GENERAL INSTRUCTIONS :*

1. This question paper comprises of 2 sections, A and B. You are to attempt both the sections.
2. All questions are compulsory.
3. All questions of section A and section B are to be attempted separately.
4. There is an internal choice in two questions of three marks each and one question of 5 marks.
5. Question numbers 1 and 2 in section A are one mark question. They are to be answered in one word or in one sentence.
6. Question numbers 3 to 5 in section A are two marks questions. These are to be answered in 30 words each.
7. Question numbers 6 to 15 in section A are three marks questions. These are to be answered in about 50 words each.
8. Question numbers 16 to 21 in section A are 5 marks questions. These are to be answered in 70 words each.
9. Question numbers 22 to 27 in section B are based on practical skills. Each question is a 2 marks question. These are to be answered in brief.

#### SECTION - A

1. Name the process by which new cells are formed.
2. What is combustion?
3. Categorize the following sounds as ultrasonic, infrasonic and audible sounds. Frequencies are given.  
a) 21 kHz      b) 19 kHz      c) 18 Hz      d) 1500 Hz

4. Write any two uses of microorganisms.
5. A light ray is falling on a mirror surface making an angle of  $30^\circ$  with the mirror surface. Find out the angle of reflection. Give reason.
6. How is burning of fossil fuels thought to be related to global warming?

OR

How are fuels classified on the basis of their physical state? Give two examples each.

7. Give three methods of conserving water.
8. Define.
  - a) Principal axis of a convex lens.
  - b) Focus of a convex lens.
  - c) Focal length of a lens.
9. Why adolescents should be careful about what they eat? Mention what their meal should consist of and what it should not.

OR

Who discovered cell? Explain cell theory.

10. Aman is an architect. He designs buildings and flats and never forgets to fix a lightning conductor on them. Give any two values exhibited by Aman? How does a lightning conductor work?
11. Make a sketch of any two unicellular organisms and a nerve cell. What functions do nerve cells perform?
12. Give the names and composition of alloys that are used for
  - a) making statues.
  - b) making surgical instruments.
  - c) joining wires in electronic equipment.
13. State whether a displacement reaction will occur if the following are mixed. Give reason.
  - a) Copper sulphate and iron
  - b) Iron sulphate and Zinc
  - c) Zinc sulphate and copper

14. Two plain mirrors are placed at the following angles with each other. Find out the number of images formed.  
a)  $60^\circ$                                       b)  $30^\circ$                                       c)  $90^\circ$
15. To conserve forests we should ban cutting down of trees completely. Do you agree? Give reason.
16. Define the following terms.  
a) reproduction                                      b) binary fission                                      c) foetus  
d) fertilization                                      e) metamorphosis
17. What is electroplating? List four uses of electroplating, giving the reason for each case.
18. Draw a labelled diagram of a 'Gold leaf electroscope'. Describe how will you use it to detect a charge, measure a charge and find the nature of charge.
19. a) What are antibiotics? Give two examples. What precautions must be taken while taking antibiotics?  
b) What are vaccines? Name any two diseases which can be prevented by vaccination.

OR

- a) What is wild life conservation? Why is it necessary?  
b) What are the consequences of deforestation? How does it affect human life?
20. a) If amplitude of a sound wave is increased by three times, by how much does the loudness increase? Why?  
b) A pendulum makes 20 oscillations in 10 seconds. Find its frequency.  
c) The time gap between lightening and thunder is found to be 5 seconds. Assuming light covers the distance instantly, what is the distance of clouds from the earth?  
(Speed of sound = 340m/s)
21. Afforestation leads to both air and water conservation, as well as soil conservation. How?

## SECTION - B

22. A paper pin is fixed at a distance of 5 cm from a plain mirror and Mithul located its image by drawing incident and reflected rays. At what distance from the mirror the image formed? Give reason.
23. Give an experiment to show real and apparent depth using a glass slab.
24. A flame always points upward. Why do you think this is so?
25. Take three test tubes, A, B and C. In test tube A add a few lumps of anhydrous calcium chloride. In test tube B pour some distilled water. In test tube C pour tap water. Put three iron nails in each and close these with corks. What would you observe after a few days? What are the conditions for rusting to take place?
26. Arya observed a plant cell and an animal cell through a microscope. Write the conclusions made by her.
27. Give an activity to show fermentation of sugar by yeast.