

# AMRITA VIDYALAYAM

## HALF YEARLY EXAMINATION 2017 -'18

Class :VIII

Marks : 80

Time : 2½ hrs

### SCIENCE

#### *GENERAL INSTRUCTIONS :*

- 1. This question paper consists of 3 sections, viz. Physics, Chemistry and Biology.*
- 2. Each section should be answered separately.*
- 3. All questions are compulsory.*
- 4. Write neatly and legibly.*

### PHYSICS

- I. Choose the correct answer.** **4**
- The weight of an object is due to \_\_\_\_\_.  
(gravitational force, frictional force, both gravitational force and frictional force, neither gravitational force nor frictional force)
  - It is difficult to walk on ice because \_\_\_\_\_.  
(pressure is high, pressure is low, friction is high, friction is low)
  - Which of the following characteristics of sound depends on the amplitude of vibration?  
(speed, pitch, loudness, quality)
  - The force divided by an area on which it acts is called \_\_\_\_\_.  
(pressure, weight, thrust, speed)
- II. Answer in one or two sentences.** **3**
- How is sound produced?
  - What is drag?
  - Why is it difficult to cut vegetables with a blunt knife?

**III. Answer in two or three sentences. 6**

1. Explain an activity to show that sound can travel through liquid.
2. What is streamlining? How is it useful?
3. What are the methods used to minimize the friction?

**IV. Answer in three or four sentences. 9**

1. How does the pressure exerted by a liquid change with depth? Explain with a diagram.
2. Give some situations where it is desirable to increase friction.
3. List the effect of force.

**V. Answer in detail. 5**

1. Does sound require a medium to travel? Describe an experiment to show that sound cannot travel through vacuum.

## CHEMISTRY

**I. Choose the correct answer. 4**

1. \_\_\_\_\_ is a nonmetal that exists in liquid state.  
(bromine, mercury, sodium, barium)
2. Which of the following can use as a substitute for glass in windows?  
(PVC, perspex, teflon, polythene)
3. Which of the following is not a fossil fuel?  
(coal, petroleum, natural gas, hydrogen)
4. Water gas is a combination of \_\_\_\_\_.  
( $N_2 + O_2$ ,  $H_2 + CO$ ,  $C + O_2$ , CNG)

**II. Answer in two or three sentences. 6**

1. List and explain four properties of plastic.
2. Define. a) refining b) carbonization
3. What are the important uses of coke?

**III. Answer in three or four sentences. 12**

1. What are alloys? Write the two uses of alloys.
2. Write the properties and uses of nylon.
3. List three steps you can take to reduce the danger that plastic causes to the environment.
4. What are renewable resources? All renewable resources are inexhaustible. Do you agree? Give reason.

**IV. Answer in detail. 5**

1. Explain the physical properties of metals and non metals.

## **BIOLOGY**

**I. Choose the appropriate answer from the brackets. 4**

1. Which one of the following is a weedicide?  
(malathion, BHC, metachlor, disyston)
2. Rearing honeybees is called \_\_\_\_\_.  
(sericulture, pisciculture, horticulture, apiculture)
3. Dodo is \_\_\_\_\_.  
(an endemic species, an extinct species, a vulnerable species, an endangered species)
4. Which of the following diseases is spread through food and water?  
(typhoid, ringworm, flu, dengue fever)

**II. Write answer in two or three sentences. 8**

1. Define hybridization. Name any two desirable characters to bring out hybridization in plants.
2. What is fermentation? Mention an industry where it is applied.
3. What are endemic species? Give an example.
4. Mention any two points on which you stress in a campaign conducted on the topic 'the measures to be taken to prevent communicable diseases'.

**III. Write answer briefly. 9**

1. Write any four methods to protect forests.
2. Why do viruses are considered the connecting link between living and non-living things?
3. How is a biosphere reserve different from an ecosystem?

**IV. Answer in detail. 5**

- 1.a) Why nitrogen is an essential element for plants?
- b) Define nitrogen cycle.
- c) List out the steps involved in nitrogen cycle.
- d) How is nitrogen assimilation different from nitrification?