























# Exam Mate

## MOCK TEST PAPER # 1

### CLASS-X (SCIENCE)

Time Allowed : 3 hours

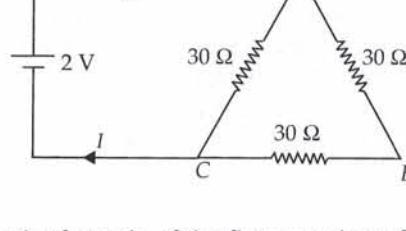
Maximum Marks: 80

#### GENERAL INSTRUCTIONS

- The question paper comprises two sections, A and B. You are to attempt both the section.**
- All questions are compulsory. However, an internal choice will be provided in two questions of 3 marks each and one question of 5 marks.**
- Question numbers 1 to 2 in Section A are one-mark questions. These are to be answered in one word or in one sentence.**
- Question numbers 3 to 5 in Section A are two marks questions. These are to be answered in about 30 words each.**
- Question numbers 6 to 15 in Section A are three marks questions. These are to be answered in about 50 words each.**
- Questions number 16 to 21 in Section A are five marks questions. These are to be answered in about 70 words**
- Question numbers 22 to 27 in Section B are two marks questions based on practical skills. These are to be answered in brief.**

#### SECTION-A

- What do you mean by rainwater harvesting ?
- Which pancreatic enzyme is effective in digesting proteins.
- Find the value of the current in the circuit shown in figure.
- Write the name and molecular formula of the first member of the homologous series of alkynes and alkanes.
- "Fossils are related to evolution", justify this statement. Give the two ways by which age of fossils can be estimated ?
- What are sexually transmitted diseases (STDs) ? Name four such diseases. Name one STD which damages the immune system of human body.
- Suggest any four activities in daily life which are eco-friendly.
- Describe with the help of a diagram, how the refraction of light takes place through a glass prism?
- a. Choose amphoteric oxides from the following oxides.  
Na<sub>2</sub>O, ZnO, Al<sub>2</sub>O<sub>3</sub>, SO<sub>2</sub>  
b. "Hydrogen gas is not evolved when most metals react with nitric acid". State reasons to justify this statement.
- What is DNA copying ? How many copies of DNA are created in a reproducing cell ? Why is DNA copying considered an essential part of process of reproduction ?
- a. Write the role of motor areas in brain.  
b. A nerve input signal travelled only upto the spinal cord and gave output signal for a response.  
What type of action will the body show voluntary or involuntary ?  
c. Draw a nerve pathway for the above action.



#### OR

- Mention one role of each of the following:
- Cerebellum
  - Forebrain
  - Medulla
- Write the name given to bases that are highly soluble in water. Give an example.
  - How is tooth decay related to pH ? How can it be prevented ?
  - Why does bee sting cause pain and irritation ? Rubbing of baking soda on the sting area gives relief. How ?
  - What are the environmental consequences of the increasing demand for energy ? What steps would you suggest to reduce energy consumption ?
  - Ria and Rama are the students of Class X. Ria is very much organized and maintained. The teachers admire her. She earns a great respect in the class whereas Rama is unorganized and always faces a lot of problems in handling life situations. Answer the following questions based on above information:
    - In your opinion how does organisation help in daily life ?

- How can you relate the above fact with the chapter classification of element ?
  - How does classification of elements help us in studying them properly ?
15. An object of size 7.0 cm is placed at 27 cm in front of a concave mirror of focal length 18 cm. At what distance from the mirror, should a screen be placed, so that a sharp focussed image can be obtained ? Find the size and the nature of the image.

#### OR

A myopic person has been using spectacles of power -1.00 D for clear vision. During old age he also needs to use separate reading glasses of power +2.00 D. Explain what may have happened to his eye-sight?

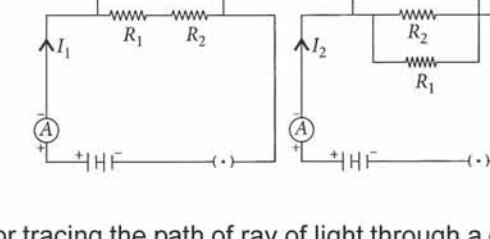
- Describe the process of fertilization in a flower.
- Why is the number of sperms produced always much more than the number of eggs produced ?
- Name the gas evolved when sodium hydrogen carbonate reacts with dilute hydrochloric acid. How will you test the presence of this gas ?
- A substance 'X' which is an oxide of a metal is used extensively in the cement industry. The element present in the substance X is an important constituent of our bones. On treatment with water, it forms a solution which turns red litmus blue. Identify 'X' and also write the equation for its chemical reaction with water.
- Why is concentrated acid added to water and not water to concentrated acid to make dilute solution of acid ?
- Explain:
  - Why stars seem higher than they actually are ?
  - Sun appears to rise 2 minutes before and set 2 minutes later.
  - Sun appears oval or flattened at sunrise and sunset.
- Explain the underlying principle and working of an electric generator by drawing a labelled diagram. What is the function of brushes ?
- Draw a diagram of cross-section of the human heart and label the following parts:
  - Right ventricle
  - Aorta
  - Left atrium
  - Pulmonary arteries
- Give reasons for the following
  - The muscular walls of ventricles are thicker than the walls of atria.
  - Arteries have thick elastic walls.
- Explain the following terms.
  - Mineral
  - Ore
  - Gangue
- Name the reducing agent in the following reaction  
$$3\text{MnO}_2 + 4\text{Al} \rightarrow 2\text{Al}_2\text{O}_3 + 3\text{Mn}$$
Which is more reactive Mn or Al and why ?

#### OR

In what forms are the metals found in nature ? With the help of examples, explain how metals react with oxygen, water and dilute acids. Also, write chemical equations for these reactions.

#### SECTION-B

- Mention the procedure to obtain a leaf's peel.
- What precautions should be taken while performing the experiment to identify the different parts of an embryo of a dicot seed ?
- A student, using the same two resistors, battery, ammeter and voltmeter, sets up two circuits, connecting the two resistors, first in series and then in parallel as shown. If the ammeter and voltmeter reading in the two cases are ( $I_1, I_2$ ) and ( $V_1, V_2$ ) respectively, write the conclusion drawn by him.



- Draw the diagram for tracing the path of ray of light through a glass slab with correct labelling.
- Five solutions P, Q, R, S and T when tested with universal indicator showed pH of 13, 8, 1, 7 and 5 respectively.
  - Which solution is
    - strongly alkaline
    - weakly acidic
  - Arrange the pH in the increasing order of hydrogen ion concentration.
- Which of the following pairs will give displacement reaction ?
  - FeSO<sub>4</sub> and copper metal.
  - FeSO<sub>4</sub> and aluminium metal.

For Answers visit: [www.dharitri.com](http://www.dharitri.com)









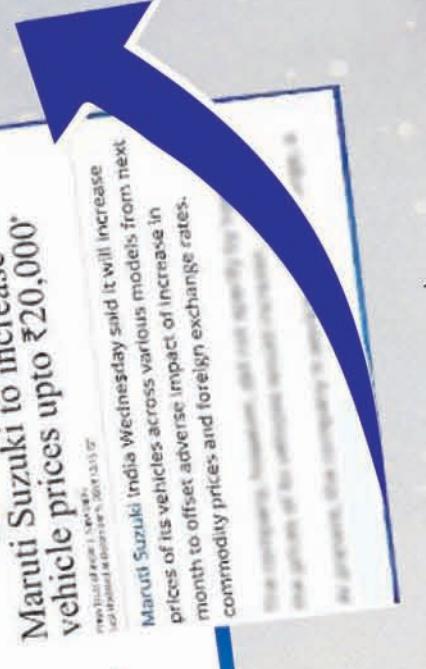
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