

GENERAL SCIENCE

For Class IX
(Total marks 75)

1. Introduction and Role of Science

- 1.1 Introduction to the history of Science and Islamic directive for the pursuit of knowledge with special reference to the contribution by Muslim and Pakistani Scientists in the field of Science.
- 1.2 Branches of Science and their inter relationship
- 1.3 Role of Science and Technology and its impact for bringing improvement in the quality of life.
- 1.4 Limitations

2. Our Life and Chemistry

- 2.1 Description of three basic elements such as, C, H₂ and O₂ Explanation of photosynthesis and respiration.
- 2.2 Explanation of different allotropic forms of carbon; types of carbon compounds and their abundance in nature.
- 2.3 Properties of water as a solvent, density of water and ice.
- 2.4 Composition of air and role of the constituents in the properties of air. Rare gases and their uses.
- 2.5 Importance and application of elements like Na, K, Mg, P, Fe, C, I, F, for the maintenance of our health, agriculture and daily life.

5. Diseases – Causes and Prevention

- 5.1 Diseases, their causes i.e. virus, bacteria, parasites, germs, etc. and preventive measures.
- 5.2 How do germs spread?
- 5.3 Protection from germs and diseases caused by them.
- 5.4 Smoke, smoking and ill health. Different diseases caused by smoke and smoking.
- 5.5 Mental illness, its cure.
- 5.6 Difference between drugs, medicines and Narcotics, their uses and abuses in society.

7. Energy

- 7.1 Introduction of energy and its forms.
- 7.2 Energy demands and different methods of acquiring energy.
- 7.3 Development of new energy resources. Explain different sources of energy, conventional and non-conventional.
- 7.4 Know how the energy is measured. Methods and units of measurement of energy and its uses.
- 7.5 Energy and the environment, especially with respect to thermal pollution and nuclear fuel hazards. Steps to minimize them.
- 7.6 Energy conservation. Conservation of energy at home, schools, industries, etc.

9. Basic Electronics

- 9.1 Basic working principle of semi conductor diode.
- 9.2 Description of Radio waves, Radio systems, Television, cable and satellite TV.
- 9.3 Computers, microprocessors, their importance and uses in different fields.
- 9.4 Description of information technology, elaborate with simple examples, Communication systems.

RECOMMENDED REFERENCE BOOKS FOR CLASS IX

The question paper will be syllabus oriented. However, the following books are recommended for reference and supplementary reading:

- 1. General Science
National Book Foundation, Islamabad
- 2. General Science
Punjab Textbook Board, Lahore
- 3. General Science
Sindh Textbook Board, Jamshoro
- 4. General Science
NWFP Textbook Board, Peshawar
- 5. General Science
Baluchistan Textbook Board, Quetta