

Atomic Energy Central School, Narora

Periodic Test III (2018-19)
Subject – Science Class- IX

Time – 1 hour & 30 minutes

Maximum Marks – 40

Physics

Important instructions:

- (a) All questions are compulsory
- (b) Use of calculator is not allowed

Q1 Define Displacement [1]

Q2 A motor boat starting from at rest on a lake accelerate on a straight at a constant rate 3 m/s^2 for 8 sec. How far does the boat travel during this time ? [2]

Q3 State Newton's second law of motion and derive an expression for the force . [2]

Q4 Define acceleration due to gravity and establish relation between g and G [3]

Q5 Define Kinetic Energy and write its two examples and also derive an expression for it [5]

Chemistry

1. Who discovered neutrons? 1
2. State the difference between valency and valence electrons. 2
3. Write two uses of isotopes. 2
4. What are the drawbacks of Rutherford's model of atom. 2
5. An element is represented by ${}_{15}\text{A}^{31}$ 3

- i. Find the atomic number
- ii. Find the mass number
- iii. Find the number of valence electrons.

6. Composition of P and Q are as following 3

| | Protons | Neutrons |
|---|---------|----------|
| P | 8 | 8 |
| Q | 8 | 10 |

- i. Write the number of electrons in p.
- ii. Find the mass no. of P and Q.
- iii. What is the relation between two species?

Biology

1. Name a group of plants where naked seeds are present. [1]
2. Name a disease transmitted by animal bite. [1]
3. Give an example of infectious and non-infectious disease. [1]
4. (a) Define health. [1]
- (b) Write any two possible reasons for transmission of AIDS. [2]
5. What are the four main characteristics of chordate. [2]
6. Give four main features of phylum Cnidaria. [2]
7. Tabulate main differences between acute and chronic diseases. [3]
8. Write names of few thallophytes. Draw a labelled diagram of *Spirogyra*. [3]