

## Shorts Question

### Worksheets I

- Q1 - How physics is related to society? (2Marks)
- Q2 - State various types of forces in nature. (2 Marks)
- Q3 - Name four physical devices widely used in medical diagnosis. (2 Marks)
- Q4 - Define technology. (2 Marks)
- Q5 - Name a few war time applications of physics? (2 Marks)
- Q6 - Name a few maritime applications of physics? (2 Marks)
- Q7 - Why do we call physics as an exact science? (2 Marks)
- Q8 - Name some German Physicists with their contribution. (2 Marks)
- Q9 - Who proposed the wave theory of light? (1 Mark)
- Q10 - Name the device which is based on amplification of light by population inversion (1 Mark)
- Q11 - How elastic spring forces arise? (1 Mark)
- Q12 - On which scientific principle does optical fibres work? (1 Mark)

### Worksheets II

- Q1 - What is physics? (2 Marks)
- Q2 - Technology is related to physics? Comment on this. (2 Marks)
- Q3 - State various types of forces in nature. (2 Marks)
- Q4 - Name four physical devices widely used in medical diagnosis. (2 Marks)
- Q5 - Name a few war time applications of physics? (2 Marks)
- Q6 - Name a few maritime applications of physics? (2 Marks)
- Q7 - Why do we call physics as an exact science? (2 Marks)
- Q8 - Who proposed the wave theory of light? (1 Mark)
- Q9 - Who discovered nuclear forces? (1 Mark)
- Q10 - Name the scientist whose field of work was elasticity. (1 Mark)

Q11 - Name the device which is based on amplification of light by population inversion (1 Mark)

Q12 - Who discovered the phenomenon of neutron induced fission of uranium (1 Mark)

Q13 - Name the branch of science which deals with study of earth. (1 Mark)

### Worksheets III

Q1 - What do you mean by measurement of a physical quantity? (2 Marks)

Q2 - Metre is well defined in terms of wavelength and time in terms of periods of radiation why? (3 Marks)

Q3 - Explain echo method to find the distance of moon. (3 Marks)

Q4 - If  $x = a + bt + ct^2$  where  $x$  is in metres and  $t$  in seconds, write the units of  $a$ ,  $b$ ,  $c$ . (3 Marks)

Q5 - Find the expression for centripetal force if it depends upon mass of the body, speed of the body, and the radius of the circular path. (5 Marks)

Q6 - What is atomic mass unit (a.m.u.)? (1 Mark)

Q7 - Which method is used for measuring nuclear sizes? (1 Mark)

Q8 - What is principle of homogeneity in dimensional method? (1 Mark)

Q9 - A quantity has dimensions. Is it necessary it must have a unit? (1 Mark)

### Worksheets IV

Q1 - Why other methods to measure the time is replaced by cesium atom clock. (2 Marks)

Q2 - What are errors? Explain two types of errors? (3 Marks)

Q3 - Convert 25 Joule into erg. (3 Marks)

Q4 - Derive the formulae for velocity ( $v$ ) of water waves that may depend upon their wavelength  $\lambda$ , density of water  $\rho$  and acceleration due to gravity  $g$ . (3 Marks)

Q5 - Find the expression for centripetal force if it depends upon mass of the body, speed of the body, and the radius of the circular path. (5 Marks)

Q6 - Which is the most accurate clock? (1 Mark)

Q7 - What is the significance of precision? (1 Mark)

Q8 - What is the responsibility of National physical laboratory (NPL)? (1 Mark)

Q9 - Name the error associated with the resolution of the instrument. (1 Mark)