

2nd Unit test- (Question Bank)

**Class: For Mechanical (ME2K), Civil (CE2K) and Electrical (EE2K) branches.
(Second Sem. K scheme)
Applied Science (ASC - 312308) –Physics**

2 Marks Questions On CO2 and CO3

- 1). Define amplitude and period of wave. (CO2)
- 2). Write the name of the different energy chakras in a body. (CO2)
- 3). The photoelectric work function of a certain metal is $3.2 \times 10^{-19}\text{J}$. Calculate its threshold frequency
($h = 6.63 \times 10^{-34}\text{J-s}$) (CO2)
- 4). Write any two application of ultrasonic waves. (CO2)
- 5). Draw a symbol of LDR and state its principle. (CO3)
- 6). What is the full form of LASER ? (CO3)
- 7). Write any two properties of X-rays. (CO3)
- 8). Write definitions of nanometer and nanoparticle. (CO3)

4Marks Questions On CO2 and CO3

- 1). State characteristics of Linear S. H. M. (CO2)
- 2). State any four properties of ultrasonic waves. (CO2)
- 3). Equation of S.H.M. is $y = 0.3\sin(2\pi t + \frac{\pi}{3})$. State (i) amplitude (ii) period (iii) frequency (iv)epoch of S.H.M. (CO2)
- 4). Write any four example of resonance. (CO2)
- 5).Work function, threshold frequency, threshold wavelength and photoelectric effect. (CO3)
- 6).State four applications of X-rays. (CO3)
- 7).State four properties of LASER. (CO3)
- 8).State four applications of nanotechnology. (CO3)

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**Class: CE/EE/ME (Second Sem K-scheme)
Applied Science BSC (312308)**

**Unit V -Water Treatment
Unit VI-Fuels and Combustion**

2 marks question

1. Define hardness of water. Give its classification.
2. List different types of common impurities found in water with example.

3. Define pH and pOH.
4. What is priming and foaming?
5. Define calorific value and ignition temperature.
6. Give the components of biogas.
7. Give the classification of fuels.
8. Define - Cracking and Knocking.

4 marks question

1. Define –
 - a. BOD
 - b. COD
 - c. Scale
 - d. Sludge
2. Discuss different methods used for potable water treatment.
3. Explain sterilization process for the treatment of water.
4. Write a note on Ion-exchange process.
5. Explain following terms –
 - a. Ohm's law
 - b. specific resistance
 - c. specific conductance
 - d. equivalent conductance
6. Give the composition of LPG and CNG
7. Name different types of coals with its calorific values.
8. What do you mean by proximate analysis? Give the steps in the determination of proximate analysis.