

Unit 4. Electricity.

I Important, 2 Marks Questions:

- ① a) S.I. units of electric current _____
 b) What happens to the resistance, as the conductor is made thicker?
 c) Name two devices, which are working on the heating effect of the electric current.
 d) Why is tungsten metal used in bulbs, but not in fuse wires?
- ② Define: Electric potential and potential difference.
- ③ State Ohm's law.
- ④ Distinguish between the resistivity and conductivity of a conductor.
- ⑤ State True or false? (If false given correct the statement)
 - (a) Ohm's law states the relationship between power and voltage.
 - (b) The S.I unit for electric current is the Coulomb.
 - (c) One unit of electric energy consumed is equal to 1000 Kilowatt hour.
 - (d) The wiring in a house consists of series circuits.
- ⑥ Book back Qns: IV - Match the following.
- ⑦ ~~Name~~ Write uses and symbols used in the following components:
 - (i) Resistor (ii) Ammeter (iii) Voltmeter (iv) Galvanometer
 - (v) LED (vi) Ground Connection.

⑧ Write the resistivity value of the following materials.
(i) Copper (ii) Nickel (iii) Glass (iv) Rubber.

⑨ Difference between the series and parallel circuit. ✖

⑩ (i) One horsepower is equal to _____

(ii) 1 kWh is equal to _____ J ✖

(iii) In India, domestic circuits are supplied with an Alternating Current of potential _____ and frequency _____

(iv) _____ is a conductor with highest resistivity

(v) The S.I units of Resistance is _____

(vi) The LED bulbs can produce with the help of Chemical compounds like _____, _____

⑪ Please Refer All Book inside Solved Problems. ✖

⑫ Solved problems: 1, ②, ③, ④ ✖

⑬ HOT Qns: ①, ③ ✖

IV Important 4, 7 Marks Questions:

① With the help of a circuit diagram derive the formula for the resultant resistance of three resistance Connected: (a) in Series and (b) in parallel. ✖

② (a) What is meant by electric Current?

(b) Name and define its unit. ✖

(c) Which instrument is used to measure the electric current? How should it be connected in a circuit?

- ③ a) State Joules law of heating. $\times$
b) An alloy of nickel and chromium is used as the heating element. why?
- ④ How does a fuse wire protect Electrical appliances?
- ④ Explain about domestic Electric Circuits. (Circuit diagram not required).
- ⑤ a) What are the advantages of LED TV over the Normal TV?
b) List the merits of LED bulbs.
- ⑥ Write a short notes on:
(i) Over loading and short circuiting
(ii) Earthing (iii) Seven Segment Display.

Prepared By

M. Abbas Manthir

B.Sc, B.Ed, M.A, M.Phil

B.T. Assistant (Science).

Ilahi high school - Cumbum.

Thani dr.

Ilahi high school youtube channel

Search More videos 

Unit 5. Acoustics Important 2 Marks Qns.

- ① a) What is longitudinal wave?
b) What is the audible range of frequency?
- ② a) What is the minimum distance needed for an echo?
b) Name three animals, which can hear ultrasonic vibrations.
- ③ Why does sound travel faster on a rainy day than on a dry day?
- ④ Explain, why the ceilings of concert halls are curved.
- ⑤ Mention two cases in which there is no Doppler effect in sound?
- ⑥ True (or) false (If false give the reason)
a) Waves created by the Earthquake are Ultrasonic.
b) The velocity of sound is high in gases than liquids.
- ⑦ Match the following:
1) Infrasonic - (a) Compressions
2) Echo - (b) 22 KHz
3) Ultrasonic - (c) 10 Hz
4) High pressure region - (d) Ultrasonography.
- ⑧ Classify the sound waves based on their frequencies.
- ⑨ Write the difference between the sound and light waves.

- ⑩ What is meant by rarer and denser medium?
- ⑪ At what temperature will the velocity of sound in air be double the velocity of sound in air at 0°C ?
- ⑫ Solved Problems: ①, ②, ③ ✱
- ⑬ Book back Qns: VIth - 4th sum, VII - 3rd sum ✱
- ⑭ Book back VIII: Refer All problems corner.

Important 4 and 7 Marks Questions:

- ① What are the factors that affect the speed of sound in gases? ✱
- ② What is meant by reflection of sound? Explain ✱
- reflection at the boundary of a rarer medium.
 - reflection at the boundary of a denser medium.
 - reflection at curved surfaces.
- ③
- what do you understand the term 'ultrasonic vibration'?
 - state the three uses of ultrasonic vibrations.
 - Name three animals which can hear ultrasonic vibrations.
- ④ What is an echo? ✱
- state two conditions necessary for hearing an echo?
 - what are the medical applications of echo?
 - How can you calculate the speed of sound using echo?
- ⑤
- Define "Doppler Effect". ✱
 - Write the Applications of "Doppler Effect". ✱
- ⑥
- Explain the Applications of Reflection of sound.
 - write a laws of reflection.

Unit: 6 Nuclear physics:

I Important 2 Marks Questions:

- ① a) Write any two elements which are used for inducing radioactivity? ✖
b) When and where was the first nuclear reactor built?
- ② Write any three features of natural and artificial radio activity. ✖
- ③ state Soddy and Fajan's displacement law. ✖
- ④ a) What is stellar Energy? ✖
b) Which material protects us from radiation?
- ⑤ fill in the blanks. ✖
(a) _____ is used to measure exposure rate of radiation in humans.
(b) The exposure of radiation may cause fatal diseases like leukemia is at the range of _____ R
(c) The radio isotope of _____ helps to increase the productivity of crops.
- ⑥ Define: (a) Becquerel (b) Roentgen.
- ⑦ Write the uses of a nuclear reactor. ✖
- ⑧ Write the preventive measures off from the exposure of radiation. ✖
- ⑨ Distinguish between Nuclear fission and Nuclear fusion. ✖
- ⑩ Explain Alpha decay and Beta decay

- ① Explain the Nuclear fission reaction with suitable example equation.
- ② Book back Match the following Qns: ①, ②, ③, 4, ⑤ -X
- ③ Book back Numerical Problems Qns: ①, 2 -X
- ④ Book back H/O Qns: 1, 2, 3 -X
- ⑤ Solved Problems: 6.1, 6.2, ⑥.3, ⑥.4 -X
- II Important 4, 7 Marks Questions:
 - ① Explain the process of Controlled and uncontrolled Chain reactions. -X
 - ② Compare the properties of Alpha, Beta and Gamma radiations. -X
 - ③ What is a nuclear reactor? Explain its essential parts with their functions. -X
 - ④ List out the uses of Radioactivity (Agriculture, Medicines -X, industries, Archeological research).

II Book Back Qns: Fill in the blanks Qns:

③, 4, ⑤, ⑥, ⑩, ⑪, ⑫ -X