

X - PHYSICS - II
Model Revision Question paper-2022

Time: - 45 minutes

Total marks: - 25 m

I Choose the correct answer:

4x1=4m

- 1) If a substance is heated or cooled, the change in mass of that substance is
a) positive b) negative c) zero d) none of the above
- 2) The value of Universal gas constant
a) $8.31 \text{ J mol}^{-1} \text{ K}^{-1}$ b) $8.03 \text{ J mol}^{-1} \text{ K}^{-1}$ c) $1.38 \text{ J mol}^{-1} \text{ K}^{-1}$
d) $8.31 \text{ J mol}^{-1} \text{ K}^{-1}$
- 3) SI unit of resistance is
a) mho b) joule c) ohm d) ohm meter
- 4) kilowatt hour is the unit of
a) resistivity b) conductivity c) electrical energy
d) electrical Power.

II Answer the following and answer any 3 of the following:

- 5) State Boyle's law?
- 6) State the law of volume?
- 7) State ohm's law?

3x2=6m

8) Define electric potential and potential difference

9) How many electrons are passing per second in a circuit in which there is a current of 5 A?

iii) Answer the following: Any any 2 of the following:

10) Distinguish between the resistivity and conductivity of a conductor? $2 \times 4 = 8 \text{ m}$

11) a) Define the Unit of Current?

b) What happens to the resistance, as the conductor is made thicker?

12) A 100 watt electric bulb is used for 5 hours daily and four 60 watt bulbs are used for 5 hours daily. Calculate the energy consumed (in kWh) in the month of January?

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iv) Answer in Detail:

13) a) i) What is meant by electric current?

ii) Name and define its Unit?

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

Con)

b) i) State Joule's law of heating?

ii) An alloy of nickel and chromium is used as the heating element. Why?

X - chemistry - II
Model. Revision Question Paper-2002

Time: - 45 minutes

Total mark } - 25M

I. Choose the correct answer:

$4 \times 1 = 4M$

- 1) The number of periods and groups in the periodic table are
a) 6, 16 b) 7, 17 c) 8, 18 d) 7, 18
- 2) Which of the following have inert gases 2 electrons in the outermost shell
a) He b) Ne c) Ar d) Kr
- 3) The number of components in a binary solution is
a) 2 b) 3 c) 4 d) 5
- 4) Which of the following is the Universal solvent?
a) Acetone b) Benzene c) water d) Alcohol

II. Answer the following. Answer any 3 of the following:

$3 \times 2 = 6M$

- 5) State two conditions necessary for rusting iron?
- 6) Define the term: solution
- 7) What is meant by binary solution?
- 8) Define Hydrated Salt?
- 9) What is aqueous and non-aqueous solution? Give an example.

Answer the following. Answer any 2 of the following:

- 10) Classify the following substances into deliquescent, hygroscopic? $2 \times 4 = 8m$
- 11) A hot saturated solution of copper sulphate forms crystals as it cools. Why?
- 12) Give an example each i) gas in liquid ii) solid in liquid iii) solid in solid iv) gas in gas.

iv) Answer in Detail:

- 13) a) Write notes on
- i) Saturated Solution
 - ii) Unsaturated Solution

(con)

b) In what way hygroscopic substances differ from deliquescent substances.

All the best

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