MHT CET Memory-Based Question Paper 2023
9 May 2023 Shift 2

PHYSICS

- At the pure inductive stage, find e_{max}.
- Current unit conversion from SI to CGI.
- In a satellite, if the time of revolution is T, then its K.E. is proportional to?
- What is photodiode device used for?

CHEMISTRY

- What is the IUPAC name of propylene glycol?
- Identify trisaccharide from the given options.
- Find the ratio of the t_0 and t for a first-order reaction.
- Find the number of electron bonds in H_2SO_4.
- If Bromopropane and Bromomethane were treated with sodium and ether, then what is the product?
- Which one of these is homopolymer?
- ΔH and ΔS were given, find ΔG (Gibbs energy).
- What is the oxidation number of nitrogen?
- What is bond enthalpy?
- In the absence of intermolecular forces of attraction, what will be the observed pressure?
- What is the degree of freedom for a polyatomic gas?
- What is the mean energy of a molecule of an ideal gas?

MATHEMATICS

- $\int (\cos \sqrt{x})\, dx = ?$
- Find the approximate value of $(25.2)1/2$.
- $\int \sin 2x \cos 2x\, dx = ?$
- Find the equivalent of $p \wedge (q \vee r) \vee \sim (r \wedge \sim (p \wedge q))$.
- Two lines $2x = 3y = -z$ and $6x = -y = -4z$ intersect at a point, then find the angle between them.
- $\tan^{-1}[(1 - \sin x + \cos x)/(1 + \sin x - \cos x)] = ?$