

(3)

X Science

30. Define Ethnobotany and write its importance.
31. How are stem cells useful in regenerative process?
32. An organic compound 'A' is widely used as a preservative and has the molecular formula $C_2H_4O_2$. This compound reacts with ethanol to form a sweet smelling compound 'B'.
- Identify the compounds 'A' and 'B'
 - Write the chemical equation for its reaction with ethanol to form compound 'B'.
 - Name the process.

Part - IV

Note : Answer all the questions.

3 x 7 = 21

(Draw diagram wherever necessary)

33. a) i) State and prove the Law of Conservation of Momentum.
ii) Calculate the velocity of a moving body of mass 5 kg whose linear momentum is 2.5 kgms^{-1} .

(or)

- b) Differentiate the following:
i) Myopia and Hypermetropia
ii) Convex lens and Concave lens.

34. a) i) Mention the ores of Aluminium with its formula.
ii) Explain the extraction of Aluminium from its ore by Baeyer's process and Hall's process.

(or)

- b) i) In what way hygroscopic substances differ from deliquescent substances?
ii) Classify the following substances into deliquescent, hygroscopic.
Conc. Sulphuric acid, Copper sulphate pentahydrate, Silica gel, Calcium chloride and gypsum salt.
iii) A solution is prepared by dissolving 45 g of sugar in 180 g of water. Calculate the mass percentage of solute.

35. a) i) Which is 'Life saving' hormone? Why it is called so?
ii) Write any two physiological effects of gibberellins.
iii) Enumerate the functions of blood.

(or)

- b) i) How does rainwater harvesting structures recharge ground water?
ii) What is POCSO Act? What are the objectives of this Act?
