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Second Sessional Exam - 2021-22

Sub :- Pharmaceutics

I. 1. Emulsion ⇒ An emulsion is a thermodynamically unstable system consisting of at least two immiscible liquid phases one of which is dispersed as globules in the other liquid phase stabilized by a third substance called ~~and~~ emulsifying agent.

Classification of Emulsifiers :-

i) Synthetic Surface active agents (Monomolecular film).

ii) Semi synthetic and natural Hydrophilic colloids (Multi-molecular films)

iii) Finely divided solid particles (Particulate film).

i) Example ⇒ a) Reduce interfacial tension and make the emulsion thermodynamically more stable.

b) To reduce the interfacial tension Oil droplets are surrounded by a coherent monolayer of the surfactant which prevent coalescence.

c) Form protective monomolecular film.

d) Micelle formation.

ii) Example ⇒ a) Also known as hydrocolloid Emulsifying agents.

b) Provide a protective sheath (Multi-molecular films) around the droplets.

c) Impart a charge to the dispersed droplets (so that they repel each other.

d) Swell to increase the viscosity of the system (so that droplet are less likely to change.

iii) Exam ⇒ a. Also known as Particulate films

b. Form a particulate "film" around dispersed particles.

c. This particles rely on adsorption to interfaces and like the hydrophilic colloids

II. 3. Classify Powder:- Powder are solid dosage form containing dry mixtures of finely devided drugs substance(s) and excipients intended for internal or external use. Although the use of powder as a dosage form has been replaced largely by the use of tablets and capsules in modern medicine, they represent one of the oldest dosage forms and present certain advantage that have led to their continued use as pharmaceutical dosage forms.

Powder can classify various dosage:-

i) Classification based on use
ii) Classification based on particle size and
iii) Classification based on dispensing by the way they are presented to the user.

5. Formulation of tablets:-

A wide variety of binders may be used, some common ones including lactose, dibasic calcium phosphate, sucrose, corn (maize) starch, microcrystalline cellulose, povidone polyvinylpyrrolidone and modified cellulose.

III. 6. Soft gelatin capsules are made from a relatively more flexible, plasticized gelatine film than hard gelatin capsules.

7. Sustained release tablets are manufactured to be more potent but dissolve slowly so they release small amounts of a medication into a patients system over an extended period of time.

8. Infusion is the extraction of flavors or chemical compounds from a plant in solvent like water where as decoction is the extraction of the essence of a plant by boiling plant materials.

9. Sweetening agents (sucrose, fructose, honey, molasses and sweeteners.