

M.Sc.(Chem.) Semester - 4 (CBCS) Examination
March/April - 2025 (As Per Syllabus Year June-2019)
Pharmaceutical Technology (Core)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Q.1 (A) Answer the following question (04)**
(1) Give the definition and brief introduction of powder and enlist bulk and particle properties of powder.
- Q.1 (B) Answer any two questions out of three (10)**
(1) Explain following powder properties in brief:
(a) Porosity, (b) Flowability
(2) Write a note on hot air-drying method for powder preparation.
(3) Give an account of particle shapes and its size diameter expression.
- Q.2 (A) Answer the following questions (04)**
(1) Write ideal properties of Vehicles.
(2) Discuss advantages of LDFs over capsules or tablets.
- Q.2 (B) Answer any two questions out of three (10)**
(1) Discuss basic theories behind the emulsification.
(2) What are pharmaceutical suspensions? Discuss its merits and demerits.
(3) What is emulsion? discuss classification of emulsions with graphical representation.
- Q.3 (A) Answer the following question (04)**
(1) Give classification of dosage forms based on route of administration.
(2) What is prolonged released tablet?
- Q.3 (B) Answer any two questions out of three (10)**
(1) Write various tablet testing parameters and explain content uniformity in detail.
(2) Write various tablet testing parameters, discuss any one in detail.
(3) Write a note on dry granulation method.
- Q.4 (A) Answer the following question (04)**
(1) Give an account on vegetative capsules.
- Q.4 (B) Answer any two questions out of three (10)**
(1) Give an account of types of gelatines and its extraction process.
(2) Explain manufacturing process of hard gelatin capsules.
(3) Write introduction, advantages and disadvantages of capsule.
- Q.5 (A) Answer the following questions (04)**
(1) Give the name and structure of any two antioxidants and any two coating agents used in tablet formulation
- Q.5 (B) Answer any two questions out of three (10)**
(1) What are pharmaceutical excipients? write the role and desirable characteristics.
(2) Which types of excipients are required for following? Give answer with brief justification and role in functioning.
(i) Emulsions
(ii) Simple compressed tablets
(3) Explain the functioning of following excipients with example:
Bulking agents, Sialagogues, Emollients, Humectants and Propellants
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