

Third Year Pharm. D (SUPPLEMENTARY) : SUMMER - 2019
SUBJECT: PHARMACEUTICAL FORMULATIONS

Date: Saturday
Day: 06/07/2019

S-2019-4545

Time: 10.00 A.M. TO 01.00 P.M.
Max. Marks. 70

N.B.

- 1) Question **ONE** and **FIVE** are **COMPULSORY**. Out of remaining questions answer any two from each section
 - 2) Answer to both the section should be written in **SEPARATE** answer books.
 - 3) Figures to the **RIGHT** indicate **FULL** marks.
-

SECTION-I

Q.1 a) Answer any **FOUR** of the following. **(08)**

- i) A cough syrup formulation shows cap locking problem during storage. Suggest various formulation and storage aspects to overcome it.
- ii) Sedimentation volume (F) of suspension A and B is 0.6 and 0.9 respectively. Comment on stability of suspension.
- iii) Write percentage of alcohol allowed in formulation of liquid orals.
- iv) Describe properties of any two artificial sweeteners.
- v) Differentiate between flocculated and deflocculated suspensions.

b) Liquid oral formulation A and B have pH of 4 and 8. Suggest suitable antimicrobial preservative for these liquids along with their merits and demerits. **(03)**

Q.2 Discuss formulation aspects for oral suspension. **(12)**

Q.3 a) An active pharmaceutical ingredient with aqueous solubility of 1 gram in 100 ml is to be formulated as oral liquid. Its single dose is 10mg/kg body weight to be given three times a day. Suggest suitable liquid formulation with its labeled strength for patient of 5 years of age. **(07)**

b) Discuss evaluation of elixirs **(05)**

Q4 Write short notes **ANY THREE** **(12)**

- a) Colouring agent
- b) Biopharmaceutical aspects of formulation design
- c) Ointment bases
- d) Evaluation of ointments

P.T.O.

SECTION-II

- Q.5** a) Answer any **FOUR** of the following. (08)
- i) A capsule filled with drug formulation shows cracks, write one reason and remedy for it.
 - ii) Suggest type of tablet for a patient with severe emesis problem.
 - iii) Write need of granulation before tableting.
 - iv) Explain ideal properties of raw material used for capsule shell.
 - v) Explain principle of passive targeted drug delivery system.
- b) Explain the significance of determination of angle of repose. Differentiate (03)
between glidant and lubricant with example.
- Q.6** Discuss in detail type of tablet coating and quality control test for coated tablet. (12)
- Q.7** a) Define and explain the concept of controlled drug delivery system, add note (07)
on transdermal drug delivery.
- b) Can water for injection used to reconstitute dry powder as injection? (05)
Comment with reason and suggest suitable alternative
- Q.8** Write short notes on **ANY THREE** (12)
- a) Small volume parenterals.
 - b) Quality control for soft gelatin capsule.
 - c) Granulation techniques of tablet.
 - d) Nasal drug delivery system.

* * * * *