

PHARMACEUTICS

Time Allowed: 3 Hours

Full Marks: 80

(Answer all questions as directed)

1. A. Choose the correct alternative (answer all)**1x10=10**

(i) Pharmaceutical aids are also called as -----

- A. an additive B. a caramel
C. an annatto D. an achiote

(ii) Annatto, a reddish-orange dye made from the seed of the-----

- A. Betanin B. Caramel
C. Achiote D. Chlorella algae

(iii) A green dye made from-----

- A. Betanin B. Caramel
C. Achiote D. Chlorella algae

(iv) -----is extracted from beets.

- A. Betanin Caramel
C. Achiote D. Chlorella algae

(v) Aqueous solutions are ----- mixture.

- A. Heterogeneous B. Homogeneous
C. Not uniform D. None of these

(vi) -----is used to prevent the oxidation of the product.

- A. Preservatives B. Sweetening agents
C. Antioxidants D. Buffers

(vii) Quality control of emulsions is done by ----- test.

- A. Phase separation B. Globule size
C. Flow properties D. All

(viii) -----is a coarse dispersion in which internal phase is dispersed uniformly throughout the external phase.

- A. Solutions B. Suspensions
C. Emulsion D. Powder

(ix) -----paraffin is prepared by bleaching yellow paraffin.

- A. White hard B. Yellow soft
C. White soft D. Brown soft

(x) ----- should be dispensed in coloured fluted bottles in order to distinguish them from preparations meant for internal use.

- A. Solutions B. Pastes
C. Liniment D. Elixirs

1.B. Answer all the following questions**1x10=10**

- i. Explain in dosage form.
- ii. What is antioxidant?
- iii. What is the range of particle size in suspensions?
- iv. Note on packing and labelling of parenteral formulation.
- v. How is a toxoid different from a toxin?
- vi. Define the term suppositories.
- vii. What is the purpose of the hydrolytic resistance test for glass containers?
- viii. What is the main difference between hard gelatin and soft gelatin capsules?
- ix. Name one material added to soft gelatin capsules to make the shell elastic.
- x. Which type of capsule is commonly used for filling liquids — hard gelatin or soft gelatin?

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2. Answer the following (any ten)

3x10=30

- i. Differentiate between dry heat and moist heat sterilisation.
- ii. Define the term: validation, calibration and standardisation.
- iii. What do you mean by isotonic, hypotonic and hypertonic solutions?
- iv. Define bioavailability, stability and viscosity.
- v. Explain the characteristics, advantages and challenges of NDDS.
- vi. Define powder. Classify powder as per IP
- vii. Discuss different types of immunity.
- viii. Discuss the various defects in tablet manufacturing.
- ix. Differentiate between Hard & Soft Gelatine capsules.
- x. Write a short note on effervescent granules.
- xi. Differentiate between QC and QA.

3. Answer the following question (any six)

5x6= 30

- i. Differentiate between lotions and liniments.
- ii. What is displacement value? How you will calculate displacement value of drug?
- iii. What are pastes? How does it differ from ointment? Discuss in brief different bases used in preparation of paste.
- iv. Differentiate between following terms: (i) ointments and pastes; (ii) suppositories and pessaries.
- v. Write the principles, construction, working, advantages, disadvantages and application of ball mill or triple roller mill with a neat, labelled diagram.
- vi. Define the techniques of size reduction, size separation, mixing, filtration and drying.
- vii. Write a short note on different methods of extraction.