

Name :

Roll No. :

Invigilator's Signature :

CS/B.Pharm (NEW)/SEM-4/PT-406/2011

2011

PHARMACEUTICS

(PHARMACEUTICAL TECHNOLOGY – I)

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following :

10 × 1 = 10

- i) Aerosol containers made of aluminium reacts with propellant 11 in presence of ethanol to form hydrogen gas. To prevent this reaction which of the following measures may be taken ?
- a) Aluminium alloys are taken instead of pure aluminium
 - b) The internal surface of aluminium containers is coated with epoxy coating
 - c) Antioxidant is added to the formulation
 - d) The aerosol containers are cooled to 4 °C.

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- ii) Gycero-gelatin is
- a) mixture of glycerol and water made into a stiff jelly by adding gelatin
 - b) mixture of glycerin and gelatin
 - c) mixture of glycerol, ethanol and water made into a stiff jelly by adding gelatin
 - d) none of these.
- iii) Solid content is maximum for which of the following semisolids ?
- a) Ointments
 - b) Pastes
 - c) Jellies
 - d) Creams.
- iv) Aspartame is a/an
- a) complexing agent
 - b) sweetening agent
 - c) flavouring agent
 - d) emulsifying agent.
- v) In non-staining iodine ointment which one of the following ingredients is added to bind iodine ?
- a) Arachis oil
 - b) Yellow soft paraffin
 - c) Methyl salicylate
 - d) None of these.



vi) Caffeine may be extracted from tea leaves by dipping the tea bag in hot water for 10 minutes. This extraction method may be called

- a) Percolation
- b) Decoction
- c) Infusion
- d) Maceration.

vii) Non-staining iodine ointment is prepared by

- a) Fusion method
- b) Chemical method
- c) Trituration method
- d) Dilution method.

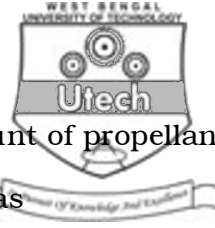
viii) The w/v percentage of sucrose in Simple Syrup IP is

- a) 66.7
- b) 68.5
- c) 65.6
- d) 85.

ix) Which of the following paraffin waxes is used in eye ointments ?

- a) White soft paraffin
- b) Yellow soft paraffin
- c) Hard paraffin
- d) Mixture of yellow soft and hard paraffins.

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- x) In a spray type actuator, when the amount of propellant is 50% or less, the product is dispersed as
- a) foam
 - b) spray
 - c) mist
 - d) stream.
- xi) Methyl paraben & propyl paraben are often used together in a ratio of
- a) 3 : 4
 - b) 2 : 1
 - c) 10 : 1
 - d) 1 : 10.
- xii) Surface active agents are best solubilizing agents when its HLB value is
- a) Lower than 10
 - b) Higher than 15
 - c) Lower than 15
 - d) Higher than 10.

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GROUP – B
(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. A suspending agent should impart thixotropic and pseudoplastic behaviors. Explain why.
3. Write a short note on colouring agents used in liquid formulations.
4. What are the various factors affecting skin penetration.
5. Define the following of a suppository base : 5×1
 - a) Acid value
 - b) Water number
 - c) Iodine value
 - d) Saponification value
 - e) Hydroxyl value.
6. Calculate the displacement value of zinc oxide in cocoa butter suppositories containing 40% of zinc oxide & is prepared in 1 gram mold. The weight of 8 suppositories containing 40% zinc oxide is 11.74 gram.

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GROUP – C

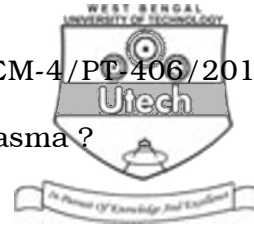
(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. a) Name the component parts of aerosol package.
b) What is propellant ?
c) Classify propellant with example.
d) Write about liquefied gas propellant with their advantage, disadvantage & properties.
e) Write a short note on aerosol value. $2 + 1 + 2 + 6 + 4$
8. a) Why is marc not pressed in the maceration process for unorganized drugs ?
b) Differentiate between percolation & maceration.
c) Why is occasional stirring done during maceration.
d) Write about soxhlation method of extraction. $2 + 5 + 2 + 6$
9. a) What are the essential requirements for ophthalmic preparations ?
b) Write a note on sterilization of ophthalmic products.
c) Describe different packages used for packing ophthalmic products. $5 + 4 + 6$

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10. a) How will you prepare dried human plasma ?
- b) How is dried plasma stored ?
- c) How is human blood collected from a donor and stored ? 8 + 2 + 5
11. a) Define Suppository. Give the advantages of incorporation of drug in suppositories.
- b) Describe the properties of an ideal suppository base.
- c) Explain the roles of the following factors affecting drug absorptions from rectal suppositories :
- i) Physiologic factor
- ii) Characteristics of drug
- iii) Characteristics of Base and Adjuvants. 4 + 4 + 7
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