Name :	8
Roll No. :	A spread (y'r particider Jani Talland

Invigilator's Signature : .....

# CS/B.Pharm (OLD)/SEM-4/PT-406 (1)/2010 2010

## 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 :

 $10 \times 1 = 10$ 

i) An ideal suppository base has an acid value of

a)	0.5	b)	< 0.2
a)	0.5	D)	< 0.2

c) > 0.2 d) 1.0

ii) Which one of the following is a humectant ?

- a) Sorbitol 70% b) PEG
- c) Both of these d) None of these.

iii) The low molecular weight glycols are

- a) liquid b) solid
- c) gas d) semisolid.

iv) The concentration of sucrose in simple syrup I.P. is

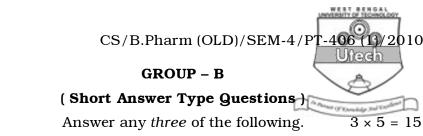
- a) 66.7% w/v b) 66.7% w/w
- c) 85% v/v d) 60% w/w.

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CS/B.Pha	arm (	OLD)/SEM-4/PT-406 (1	l)/20		
v)	The concentration of alcohol used in Triple Maceration process is				
	a)	20%	b)	70%	
	c)	90%	d)	10%.	
vi)	Hydroxyethyl methyl methacrylate is used to prepare				
	a)	Hard contact lens	b)	Soft contact lens	
	c)	both of these	d)	none of these.	
vii)		an ideal suspension, uld be	the	sedimentation volume	
	a)	equal to one	b)	less than one	
	c)	more than one	d)	zero.	
viii)	) In the stability of emulsion, which of the instability steps is prevented by emulsifiers ?				
	a)	Cracking	b)	Coalescence	
	c)	Creaming	d)	Flocculation.	
ix)		drying blood plasma miques is used	a wl	hich of the following	
	a)	Spray drying	b)	Freeze drying	
	c)	Vacuum drying	d)	Fluid bed drying.	
X)	Which one of the following devices is used to increase the efficiency of drug delivery via aerosols ?				
	a)	Tube spacers	b)	Metered valve	
	c)	Actuator	d)	Pressure valve.	
xi)	An ideal process for preparing tincture of belladona is				
	a)	Percolation	b)	Maceration	
	c)	Soxhlation	d)	Infusion.	
xii)	Brij is a				
	a)	solubilizing agent	b)	flavouring agent	
	c)	sweetening agent	d)	complexing agent.	

44173

2



- 2. Write a short note on Dextran-40 injection.
- 3. Discuss the differences between aquasol-aerosol system and water-based aerosol system.
- 4. Discuss with explanation any *two* of the following :
  - i) A combination of emulsifiers imparts better stability to an emulsion than a single agent.
  - ii) Thixotropy is a desirable property in pharmaceutical coarse dispersion system.
  - iii) Creaming is a reversible process whereas breaking is an irreversible process.
- 5. Define the following of a fatty base :
  - a) Iodine value
  - b) Water number
  - c) Saponification value
  - d) Acid value
  - e) Hydroxyl value.
- 6. Write a short note on antioxidants used in liquid pharmaceutical formulations.

#### **GROUP - C**

#### (Long Answer Type Questions)

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

- 7. a) What are eye ointments ? How do they differ from skin ointments ?
  - b) Briefly discuss the method of preparation of eye ointment.
  - c) What are the advantages and disadvantages of eye ointment? 4 + 6 + 5

3

44173

[ Turn over

CS/B.Pharm (OLD)/SEM-4/PT-406 (1)/2010



- 8. a) Write short notes on modified percolation and reverse percolation.
  - b) Discuss briefly the packing procedure of a percolation column. Why is imbibition done before packing of percolator ?
    8 + (5 + 2)
- 9. a) Define suppository. Discuss in brief the various types of bases used in the preparation of suppository.
  - b) Describe the properties of an ideal suppository base.
  - c) Calculate the displacement value of Zinc oxide in theobroma oil suppositories containing 40% of Zinc oxide and is prepared in a 1 gm mould. The weight of 8 suppositories is 11.74 gm. 2+5+4+4
- 10. a) Write about the various methods of sterilization of ophthalmic product.
  - b) Is it necessary to perform bioavailability study for ophthalmic products ?
  - c) Describe the preservative efficacy test. 7 + 3 + 5
- 11. a) Why aerosol product containing anhydrous ethanol and propellant 11 is not packed in aluminium container ? What is the remedy of this problem ?
  - b) What is actuator ? What are the different types of actuator ?
  - c) What do you mean by the term 'lacquering'?
  - d) Write short notes on the following :
    - i) Flame extension point
    - ii) Cascade impactor. 5+3+1+6

44173