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Invigilator's Signature:	

### CS/B. PHARM (OLD)/SEM-4/PT-406 (1)/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:

 $10 \times 1 = 10$ 

					10 ×	
i)	Urethral suppositories is also called					
	a)	pessaries	b)	bougies		
	c)	suppositories	d)	aquasol sy	stem.	
ii)	For an ideal suppository base acid value is					
	a)	0.5	b)	< 0.2		
	c)	> 0.2	d)	1.0.		
iii)	) Myrj is chemically					
	a)	a) Polyoxyethylene stearates				
	b) Polyethylene stearates					
	c) Polyoxyethylene glycol					
	d)	Polyethylene glycol	•			
iv)	Pol	ytetrafluoroethylene :	is			
	a)	Teflon	b)	Nylon		
	c)	Polythene	d)	Rubber.		
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44173 [Turn over

#### CS/B. PHARM (OLD)/SEM-4/PT-406 (1)/2011



- v) Hydrocarbon propellant A-70 produces
  - a) foam

- b) spray
- c) drier particle
- d) wetter particle.
- vi) The moisture content of suspensoid & propellant must be
  - a) < 300 ppm
- b) > 400 ppm
- c) 300 ppm
- d) 400 ppm.
- vii) Which one of the following is used as humectant in creams?
  - a) Sorbitol 70%
- b) PEG

c) Both

- d) None of these.
- viii) The low-molecular-weight glycols are
  - a) Liquid

b) solid

c) gas

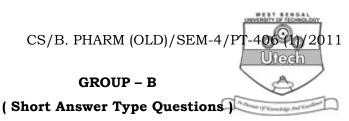
d) semi-solid.

- ix) Brij is a
  - a) solubilizing agent
- b) sweetening agent
- c) flavouring agent
- b) complexing agent.
- x) Aspartame is ..... times sweeter than sucrose.
  - a) 250-500
- b) 300

c) 200

- d) 150.
- xi) The concentration of sucrose in simple syrup I.P is
  - a)  $66.7 \% \text{ W/}_{\text{V}}$
- b)  $66.7 \% \text{ W/}_{\text{W}}$
- c) 85% u/v
- d)  $60\% \text{ W/}_{\text{W}}$ .
- xii) Which of the following is used as perservative in opthalmic preparations?
  - a) Phenol
  - b) Benzalkonium chloride
  - c) Benzoic acid
  - d) Chlorocresol.

44173



Answer any three of the following.

 $3 \times 5 = 15$ 

- 2. Discuss the differences between aquasol aerosol system and water based aerosol system.
- 3. Write short note on Triple maceration process of extraction. What do you mean by 'volume retained by drug'?
- 4. Briefly discuss the method of preparation of Dried human plasma.
- 5. Write a brief account on the theory of emulsion.
- 6. Write short note on antioxidants used in liquid formulation.

#### **GROUP - C**

#### (Long Answer Type Questions)

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

- 7. a) Write a short note on Metered-Dose Inhalers.
  - b) What is the name & structure of propellant -114?
  - c) How to increase the stability of aerosol suspension system?
  - d) What is the difference between aerosol emulsion & non-aerosol emulsion systems?
  - e) Write a short note on Actuators. 5 + 1 + 5 + 1 + 3
- 8. a) What do you mean by cracking of an emulsion? What are the factors responsible for it?
  - b) How will you differentiate flocculated & deflocculated suspensions?
  - c) Write a short note on sedimentation rates. Give a brief account on wetting. 5 + 4 + 6

44173 3 [Turn over

#### CS/B. PHARM (OLD)/SEM-4/PT-406 (1)/2011



- 9. a) Write the differences between ointment and paste
  - b) Discuss briefly the factors affecting the permeability of the skin.
  - c) Describe the different types of ointment bases used for the preparation of ointments. Give their merits and demerits.
     2 + 6 + 7
- 10. With proper explanation discuss the following (any five).  $5\times3$ 
  - a) A flocculated suspension is preferred to a deflocculated suspension.
  - b) A combination of emulsiflers imparts better stability to an emulsion rather than a single agent.
  - c) Creaming is a reversible process whereas breaking is an irreversible process.
  - d) Emulsion is thermodynamically unstable system.
  - e) Thixotropy is a desirable property in pharmaceutical coarse dispersion system.
  - f) Microemulsions are clear, transparent biphasic system.
- 11. a) Define eye drops? What are the requirements for the preparation of an eye drop?
  - b) What are the preservatives used in ophthalmic preparations?
  - c) Write about the various methods of sterilizations of ophthalmic preparations. (2 + 3) + 5 + 5

44173