Name :	Utech
Roll No. :	8
Invigilator's Signature :	

CS/B.PHARM (O)/SEM-7/PT-706/2012-13 2012 PHARMACEUTICS (Pharmaceutical Technology)

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)

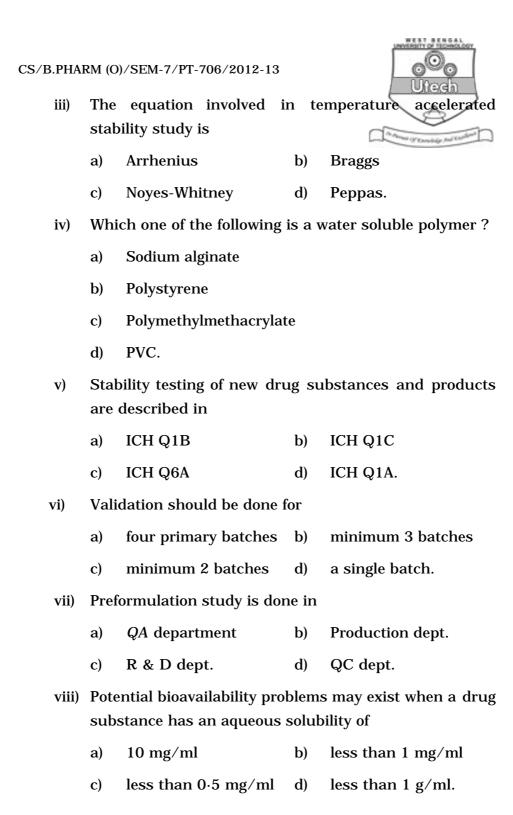
1. Choose the correct alternatives for the following :

 $10 \times 1 = 10$

- i) Which is more stable polymorphic form of Chloramphenicol palmitate ?
 - a) A b) B
 - c) *C* d) None of these.
- ii) Which antioxidant should be used in aqueous pharmaceutical preparation ?
 - a) BHT b) BHA
 - c) Ascorbic acid d) Lecithin.

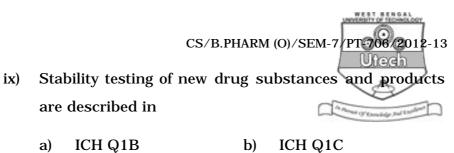
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- c) ICH Q6A d) ICH Q1A.
- x) Nanoparticles are having submicron particles in the nanometer size range of
 - a) 20 to 15000 nm b) 10 to 1000 nm
 - c) 10 to 10000 nm d) 1 to 1000 nm.

GROUP – B

(Short Answer Type Questions)

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

- 2. Give the ICH guidelines for stability testing of pharmaceuticals.
- 3. Write in brief about the process validation method for pharmaceutical operations involved in tablet production.
- 4. Write in brief about the process validation method for pharmaceutical operations involved in tablet production.
- 5. What is Carr's index ? How to determine bulk density ? Define Hausner ratio. 2 + 2 + 1
- 6. Write short notes on racemization & polymorphism. 2 + 3

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 $3 \times 15 = 45$

GROUP – **C**

Answer any three of the following.

(Long Answer Type Questions)

7. What is the difference between validation & calibration ? What is the basic principle of validation ? What is process validation ? What are the different phases of process validation ? Write about the process validation of tablets.

2 + 2 + 1 + 3 + 7

- 8. What is stability ? What are the various routes of drug degradation ? Write about the physical decomposition of pharmaceutical products. Briefly disuss hydrolysis as a major drug degradative pathway. 2 + 2 + 5 + 6
- 9. Describe the advantages & disadvantages of controlled release formulation. Discuss the different methods of preparation of controlled release formulation. 8 + 7
- 10. Explain the terms 'absolute bio-availability' and 'relative bio-availability'. Explain minimum effective concentration, $C_{\rm max}$, $T_{\rm max}$, onset and duration of drug action and therapeutic intensity of a drug by sketching a drug concentration *vs* time curve. $(2 \times 2\frac{1}{2}) + 10$

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