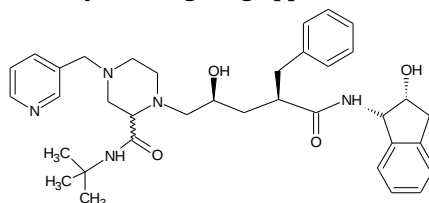


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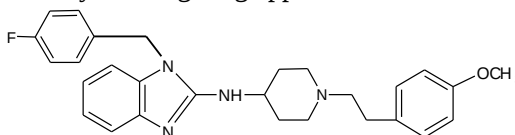
Subject Code: 153601**Date: 17-06-2014****Subject Name: Pharmaceutical Chemistry****Time: 10.30 am - 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define : Chromophore, Absorptivity, Synthon, Finger Print region, Chromatography, Nitrogen rule, Adsorption **07**
- (b) Give retrosynthetic analysis of the Indinavir (structure below) using building block approach and suggest a reasonable route for synthesis giving approximate conditions: **07**



- Q.2** (a) Give retrosynthetic analysis of the following molecule using building block approach and suggest a reasonable route for synthesis giving approximate conditions: **07**



- (b) Write retrosynthetic analysis for the following : **07**
- (i) Captodiamine (ii) Dimedone

OR

- (b) Write retrosynthetic analysis for the following : **07**
- (i) Salbutamol (ii) Fencamfamin

- Q.3** (a) How HPLC differs from Gas chromatography? Write a note on quantitative HPLC. **07**
- (b) Explain principle and working of UV visible spectrophotometer? **07**

OR

- Q.3** (a) Explain the construction and working of HPLC. **07**
- (b) Write notes on (i) Fundamental laws related to adsorption (ii) Filters **07**

- Q.4** (a) Give application of GC in pharmaceutical industries? Give reasons for limited application of GSC. **07**
- (b) Write a note on FID. **07**

OR

- Q.4** (a) Explain the principle, definition, construction and working of a Flame photometer? **07**
- (b) (i) Give advantages and importance of mass spectroscopy. **07**
- (ii) Explain M+1 and M+2 peaks in mass spectroscopy? **07**

- Q.5** (a) Give the synthesis of Pyridoxine. **07**
- (b) How can you synthesize 4-(ter-Butoxy carbonyl amino)-1-methyl-pyrrole-2-carboxylic acid? **07**

OR

- Q.5** (a) Give the synthesis of Riboflavin. **07**
- (b) Explain the synthesis of 1-hydroxy ethylene peptide using Wadsworth-Emmons reaction. **07**
