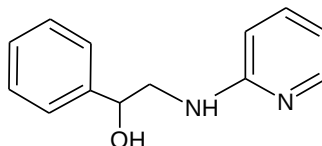


GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – WINTER • 2014****Subject Code: 153601****Date: 01-12-2014****Subject Name: Pharmaceutical Chemistry****Time: 10:30 am - 01:00 pm****Total Marks: 70****Instructions:**

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

- Q.1 (a)** (i). Out line the synthesis of Vitamin D3 **04**
(ii). Give classification of Vitamin **03**

- (b)** (i). By disconnection (synthon approach), suggest a scheme for the synthesis of Antiamoebic drug- Metronidazole. **04**
(ii). By disconnection(synthon approach), suggest a scheme for the synthesis of Phenylamidol

**03**

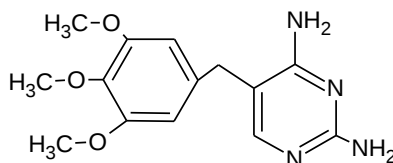
- Q.2 (a)** How HPLC differs from Gas Chromatography. Write a note on quantitative HPLC **07**
(b) Outline the synthesis of Biotin **07**

OR

- (b)** (i). By disconnection (synthon approach), suggest a scheme for the synthesis of antibacterial-Sulphanilamide. **03**
(ii). By disconnection (synthon approach), suggest a scheme for the synthesis of (a). Aspirin, (b). Amphetamine **04**
- Q.3 (a)** Write short notes with two examples: (i). Retrosynthesis, (ii). Retrosynthetic analysis, (iii). Synthons **07**
(b) Explain principle and working of UV visible spectrophotometer **07**

OR

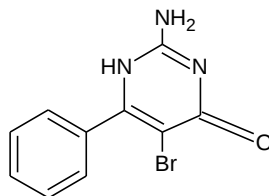
- Q.3 (a)** Suggest a techno-commercial synthesis route for Trimethoprim (a pyrimidine derivative) **07**



- (b)** Give advantage and importance of Mass spectroscopy **07**

- Q.4 (a)** (i).By disconnection approach, arrive at a suitable synthesis for the anti viral **04**

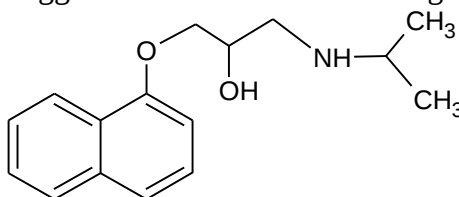
agent Bropiramine



- (ii) Suggest a techno-commercial synthesis route for Isoniazide a derivative of six membered heterocycle-Pyridine **03**
- (b) Outline the synthesis of Vitamin E **07**

OR

- Q.4 (a)** Outline the synthesis of Folic acid **07**
- (b)** Explain the construction and working of HPLC **07**
- Q.5 (a)** Outline BASF synthesis of Vitamin A **07**
- (b)** (i). Suggest a techno-commercial synthesis route for the pyrazolone derivative antipyretic drug-Antipyrine. **04**
- (ii). By disconnection, suggest a scheme for the CV drug-Propriolol **03**



OR

- Q.5 (a)** Explain the principle, definition, construction and working of a Flame photometer **07**
- (b)** Outline the synthesis of a Benzodiazepine derivative of Antianxiety drug-Diazepam **07**

