

**GUJARAT TECHNOLOGICAL UNIVERSITY****M.PHARM- SEM-II-EXAMINATION – JULY 2012****Subject code: 2920205****Date: 09/07/2012****Subject Name: Advances in Pharmaceutical Science****Time: 10:30 am – 01:30 pm****Total Marks: 80****Instructions:**

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

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|-------------|-----|---|-----------|
| <b>Q.1</b>  | (a) | Enlist various brain disorders and give the detail of plants and phytoconstituents for brain tonic activity.  | <b>06</b> |
|             | (b) | Write short note on diuretic plants.  | <b>05</b> |
|             | (c) | Give the detail of phytoconstituents as hepatoprotective.   | <b>05</b> |
| <b>Q.2</b>  | (a) | Explain the mechanism of action of following drugs as an anticancer.<br>1. Vincristine<br>2. Camptothecin<br>3. Etoposide   | <b>06</b> |
|             | (b) | Define and classify nutraceuticals with suitable examples.  | <b>05</b> |
|             | (c) | Write brief note on polyunsaturated fatty acid as nutraceuticals.   | <b>05</b> |
| <b>Q.3</b>  | (a) | Enlist the various plants for antidiabetic activity and give its biological source and chemical constituents.   | <b>06</b> |
|             | (b) | Explain the different models for screening of antioxidant activity.   | <b>05</b> |
|             | (c) | Classify the cardiac glycoside with suitable examples and explain the mechanism of action of cardiac glycoside.   | <b>05</b> |
| <b>Q.4</b>  | (a) | Explain the differentiating chemical tests between following phytoconstituent.<br>1. Cardenolide and bufadienolide<br>2. Steroidal saponin and triterpenoid saponin<br>3. O- glycoside and C- glycoside | <b>06</b> |
|             | (b) | Write short note on Guggul  | <b>05</b> |
|             | (c) | Explain the importance of thin layer chromatography in plant drug analysis.   | <b>05</b> |
| <b>Q.5</b>  | (a) | Write brief note on Curcumin and Digoxin  | <b>06</b> |
|             | (b) | Define pesticide and explain the methods for pest control.  | <b>05</b> |
|             | (c) | Give the detail of secondary metabolites of plant for pesticide.  | <b>05</b> |
| <b>Q. 6</b> | (a) | Explain immunomodulating activity of Galo and Ashwagandha.  | <b>06</b> |
|             | (b) | Discuss various phytoconstituents used for HIV infection.   | <b>05</b> |
|             | (c) | Explain the importance of Soya product for the health benefit.  | <b>05</b> |
| <b>Q.7</b>  | (a) | Explain phytochemical screening of Alkaloid, Flavonoid and Tannin   | <b>06</b> |
|             | (b) | Explain the mechanism of action of Artemisin for anti-malarial activity.  | <b>05</b> |
|             | (c) | Enlist the different models for evaluation of antiulcer and anti-inflammatory activity.   | <b>05</b> |