

GUJARAT TECHNOLOGICAL UNIVERSITY**M. PHARM - SEMESTER-II • EXAMINATION – SUMMER 2016****Subject Code: 2920107****Date: 19/05/2016****Subject Name: Pharmaceutical Analysis -II****Time: 10:30 AM To 1:30 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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| Q.1 | (a) | Enlist and discuss different methods used in phytochemical extraction. | 06 |
| | (b) | Describe SFC as a method for phytochemical analysis | 05 |
| | (c) | Write a note on sequential steps in extraction of plant constituents. | 05 |
| Q.2 | (a) | Give a detailed account of Ash Value. | 06 |
| | (b) | What is an Extractive value? Discuss their types and methods. | 05 |
| | (c) | Discuss in detail methods for determination of fiber content. | 05 |
| Q.3 | (a) | Discuss various parameters in analysis of Asava and Arishta. | 06 |
| | (b) | Enlist and discuss the evaluation parameters for Ghrita/Taila. | 05 |
| | (c) | Write an explanatory note on Iodine value, Acid value and Saponification value. | 05 |
| Q.4 | (a) | What are amino acids and proteins? Discuss method to determine primary structure of proteins. | 06 |
| | (b) | Describe purification of peptide and proteins using size exclusion chromatography. | 05 |
| | (c) | Write a note on Isoelectric focusing method for separation of peptides and proteins. | 05 |
| Q.5 | (a) | What are Impurity and Related substance? Give an account of stress degradation study. | 06 |
| | (b) | Discuss in detail ICH Q3A Guideline of Impurity in new drug substances. | 05 |
| | (c) | Why it is necessary to control Residual Solvent? Discuss ICH Q3C Guideline for Residual Solvent. | 05 |
| Q. 6 | (a) | Discuss in detail Counter Current Chromatography. | 06 |
| | (b) | Write an explanatory note on use of LC-MS in drug analysis. | 05 |
| | (c) | Describe different sample preparation techniques employed in quantification of drugs in biological matrices. | 05 |
| Q.7 | (a) | Discuss Electrophoretic techniques used for isolation of peptides | 06 |
| | (b) | Give an account of Ion exchange chromatography used for peptide and protein purification. | 05 |
| | (c) | Write giving suitable examples principles underlying analysis of antihypertensive or antidiabetic drugs official in IP. | 05 |
