GUJARAT TECHNOLOGICAL UNIVERSITY

M. PHARM - SEMESTER-II • EXAMINATION – SUMMER 2016

Subject Code: 2920105 Date: 19/05/2016 Subject Name: Advanced Analytical Pharmacognosy 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. **Q.1** Write a note on spirulina and marine toxins. 06 (a) **(b)** Explain in detail about volatile matter estimation. 05 Explain in detail about Churna, Vati and Gutika with explanation of their 05 (c) standardization parameters. Q.2 Write a note on anticoagulant, antiviral and cardiotonic agents derived from 06 (a) marine sources. Explain in detail about Ghrihta and Taila with explanation of their **(b)** 05 standardization parameters. Write a note on microbial contamination in herbal drugs. (c) 05 Q.3 Explain basic principles of Ayurveda. 06 **(a) (b)** Explain in detail of about Foaming Index and Swelling Index. 05 Write a note on chromatography for evaluation of herbal drugs. (c) 05 **Q.4** What is standardization? Classify various parameters of standardization of 06 (a) herbal drugs and herbal formulations according to WHO. Explain different Ash Values and Extractive Values in detail. What is the importance of Heavy Metal Analysis in standardization herbal **(b)** 05 formulations? Write their limits. Write about Bitterness Value & estimation of Tannin content? (c) 05 Q.5 Classify various Ayurvedic formulations. Explain in detail Asava and Arista 06 (a) with explanation of their standardization parameters. What is the difference between TLC & HPTLC? Write instrumentation of 05 **(b)** HPTLC. How GC can be useful in standardization of herbal medications. 05 (c) **Q.6** What is stability? Write a note on stability testing of natural products. 06 **(a)** What is the advantage of using UV in standardization of herbs? 05 **(b)** Write the importance of microscopic and macroscopic evaluation for (c) 05 standardization of herbs. 06 0.7 (a) Write down regulatory and safety measures for drugs with traditional drugs. What are different types of Stomata and Trichomes? **(b)** 05 Write about different types of Vascular Bundles? Differentiate between Dicot 05 (c) and Monocot Leaves. Roots and Stem.
