

GUJARAT TECHNOLOGICAL UNIVERSITY**B.PHARM. - SEMESTER- VII • EXAMINATION – SUMMER-2016****Subject Code: 2270008****Date: 13/05/2016****Subject Name: Nutraceuticals****Time: 2:30 PM to 5:30 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** (a) What are nutraceuticals? Describe historical perspective, classification and scope of nutraceuticals. (6)
- (b) Discuss relation of nutraceutical science with other sciences. (5)
- (c) Discuss current trend in nutraceutical industry. (5)
- Q.2** (a) Discuss biological sources, active constituents of six nutraceutical remedies for each of the disorder, arthritis and bronchitis. (6)
- (b) Discuss biological sources, active constituents of five nutraceutical remedies for each of the disorder, hypoglycaemia and liver disorders. (5)
- (c) Discuss biological sources, active constituents of five nutraceutical remedies for each of the disorder, Circulatory problems and nephrological disorders. (5)
- Q.3** (a) Describe biological sources, active constituents and importance of nutraceuticals, green tea and flex seeds in human health. (6)
- (b) Give biological sources, active constituents and importance of nutraceuticals, lycopene and chlorophyll in human health. (5)
- (c) Discuss biological sources, active constituents and importance of nutraceuticals, grape products and proteins in human health. (5)
- Q.4** (a) Discuss biological sources and importance of dietary fibers, prebiotics and probiotic in human health. (6)
- (b) Describe biological sources and importance of vegetables and milk in human health. (5)
- (c) Give sources and discuss health effects of garlic and citrus fruits in human health. (5)
- Q.5** (a) Describe names, sources, active constituents and role of bioavailability enhancers. (6)
- (b) Discuss role of different herbal beverages and drinks used for human health. (5)
- (c) Write a note on Ginseng as health food. (5)
- Q.6** (a) Describe biological sources, active constituents and importance of spirulina and musroom extracts in human health. (6)
- (b) Give names and biological sources of nutraceutical remedies used for psoriasis and ulcers. (5)
- (c) Discuss in detail role of cereals in human health. (5)
- Q.7** (a) Describe packaging strategies for nutraceutical products. (6)
- (b) Discuss regulatory guidelines for nutraceutical products. (5)
- (c) Give salient features of DSHEA act and global regulatory agencies and bodies for nutraceuticals in different countries. (5)