

Time: 2 Hours

Marks:40

N.B. 1. All questions are compulsory.

2. Figures to right indicate full marks.

Q.1 Answer the following.

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- i. Define Nutrigenomics.
- ii. What are dietary supplement? Give example.
- iii. What is intentional adulteration? Give example.
- iv. What does FSSAI stands for?
- v. Write the source and draw structure of Lutein.
- vi. Give source and uses of Glutathione.
- vii. Mention any two nutraceutical advantages of glucosinolates.
- viii. Give examples of soluble and insoluble dietary fibers.
- ix. Give any two significances of Avenanthramides from oats as nutraceutical.
- x. Give two toxic contaminants in nutraceutical products.
- xi. Mention any two limitations of nutraceuticals.
- xii. What is food fortification?

Q.2 Answer the following.

- i. Classify nutraceuticals based on chemical nature and give advantages of nutraceuticals. 4
- ii. Write on maternal and child nutrition. 3

Q.3 Answer the following.

- i. Give the occurrence, metabolism, pharmacokinetic properties and therapeutic uses of Resveratrol OR Soy isoflavone . 4
- ii. Write a note on safety aspects of nutraceuticals. 3

Q.4 Answer the following.

- i. Discuss the regulatory aspects of Nutraceuticals as per EU guidelines 4
- ii. Write a note on collagen from fish skin. 3

Q.5 Answer the following.

- i. Discuss stability evaluation and labeling of nutraceutical formulations. 4
- ii. Discuss any three Pharmacopoeial specifications for nutraceuticals and dietary supplements. 3
