



12. The mechanism of action of Cholecystokinin A is to help in.....
- a. Type 2 diabetes
  - b. Obesity
  - c. Weight loss
  - d. Both b and c
13. Which probiotic microorganism was 1<sup>st</sup> discovered?
- a. *Lactobacillus acidophilus*
  - b. *Lactobacillus bulgaricus*
  - c. *Bifidobacterium breve*
  - d. *Lactobacillus plantarum*
14. Hemicellulose is an example of:
- a. Protein
  - b. Dietary fiber (DF)
  - c. Insoluble DF
  - d. Both b and c
15. The term..... refers to the imbalance of the gut microbiota.
- a. Eubiosis
  - b. Dysbiosis
  - c. SCFAs
  - d. None of these
16. When was Dietary Supplement Health and Education Act (DSHEA) implemented?
- a. 1995
  - b. 1990
  - c. 1994
  - d. 1992
17. Alginate is used as a .....in encapsulation process.
- a. Sugar derivatives
  - b. Starch derivatives
  - c. Non-starch derivatives
  - d. None of these
18. Hypogeic acid is found in:
- a. Walnut
  - b. Olives
  - c. Sunflower
  - d. Human milk
19. When did FSSAI implemented Food safety & standards regulations for nutraceuticals?
- a. 2011
  - b. 2006
  - c. 2010
  - d. 2016
20. New bone formation is known as:
- a. Osteoclast
  - b. Osteoblast
  - c. Osteoporosis
  - d. All of these

-- -- --

**( Descriptive )**

Time : 2 hr. 30 mins.

Marks : 50

[ Answer question no.1 & any four (4) from the rest ]

- |  |          |
|--|----------|
| 1. Discuss the effect of nutraceuticals compounds on metabolic diseases.   | 10       |
| 2. Write the criteria for a microorganism to be claimed as probiotic?<br>Describe the mechanism of action for probiotics.                              | 4+6=10   |
| 3. Explain about traditional nutraceuticals and its role on metabolic diseases.  | 5+5=10   |
| 4. Write down on:<br>a) Prebiotics<br>b) Phytoestrogen<br>c) Gut-brain connection<br>d) Fat replacers  | 2.5×4=10 |
| 5. What are essential fatty acids (EFAs) and how do they act as nutraceutical compounds?   | 10       |
| 6. Why functional foods are regarded as nutraceuticals?  | 10       |
| 7. Define nutraceuticals with examples. Write the classification of nutraceuticals. Explain the mechanism of bioactive peptides.                       | 1+4+5=10 |
| 8. Discuss the technologies used in the formulation of nutraceutical products and explain the regulations and laws framed for nutraceuticals products. | 5+5=10   |

= = \*\*\* = =