

Total number of printed pages: Programme(PG)/1st Semester/PFET1122

2022

Functional Food and Nutraceuticals

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

1.	a)	What is nutraceutical?	2
	b)	Write the names of seven Nutraceuticals present in natural food with examples, food source, beneficial effects, deficiency problems.	18
2.	a)	How free radicals are generated in our system?	5
	b)	How these free radicals cause damaging reactions in our system?	5
	c)	How scavenging of free radicals is possible by nutraceuticals (like CAT, GSHPx, SOD, Vitamin E, Vitamin C, Vitamin A, Bioflavonoids, Carotenoids etc)?	10
3.		Write microbial production of value added nutraceuticals using genetically engineered cell.	20
4.	a)	What is glycaemic response?	2.5
	b)	How Glutathione peroxidase plays important role in our system?	2.5

	c)	How probiotic is beneficial to human gut health? Hence mention role prebiotic to support the process. Name few prebiotics.	15
5.	a)	Briefly mention adverse affects/ overdose/ drug-supplements interaction of the following: Vitamin and mineral supplements Fish oil and Omega-3 fatty acids Protein powder (soya protein isolate) Nutraceuticals Weight loss, sport supplements	20
6.	a)	What is polyphenols? Write name of polyphenols of tea, coffee, red wine, legumes, winged beans and their beneficial effects.	15
	b)	How antioxidant activity is evaluated by <i>In vitro</i> method?	5

