Total number of printed pages: 3 **Programme(D)/5th /DFET502**

2022

FOOD PRODUCT TECHNOLOGY-II

Full Marks : 100

Time : Three hours

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

*Answer **any five** questions.*

1.	a)	Describe the structure of an egg with a suitable diagram.		6
	b)	Write the nutrient composition of whole egg, egg white and egg yolk		1+1+1=3
	c)	Choose the correct answer		1×5=5
		i)	Biological value of ***egg protein/egg lipid*** is 100.	
		ii)	***Avidin/Vitellin*** is protein present in egg white that binds with vitamin biotin making it unavailable to the body.	
		iii)	The primary phospholipid present in egg is ***lecithin/cholesterol***.	
		iv)	***Myoglobin/Hemoglobin*** is the pigment present in skeletal muscle.	
		v)	***Egg white/egg yolk*** becomes thin as an egg ages.	
	d)	Describe briefly any two preservation methods of eggs.		3+3=6
2.	a)	What are the three types of proteins present is meat muscle?		2+2+2=6
	b)	Discuss the post-mortem changes in meat.		4
	c)	Explain how tenderness in meat can be achieved by ageing of meat.		4
	d)	Differentiate between **(any three)**		2×3=6
		i)	Lean meat and marbled meat	
		ii)	White meat and red meat	
		iii)	Lamb and mutton	
		iv)	Veal and beef	
3.	a)	Describe the four artificial methods of tenderizing meat.		3+3+3+2=11

	b)	Write short notes **(any three)**		3×3=9
		i)	Curing of meat	
		ii)	Refrigeration and freezing	
		iii)	Drying	
		iv)	Salt curing and pickling	
		v)	Smoking	
		vi)	Spoilage of eggs	
4.	a)	Briefly explain the types of fish with some examples.		5
	b)	Write any three points used to identify the freshness of a fish?		3
	c)	What are the three reasons for the spoilage of fish? Explain briefly.		2+2+2=6
	d)	Discuss any two methods of preservation of fish.		2×3=6
5.	a)	What is baking? Describe the principle of baking with suitable diagram.		2+6=8
	b)	Discuss the three stages of a baking process.		4+4+4=12
6.	a)	Differentiate between **(any four)**		2×4=8
		i)	Direct heating ovens and indirect heating ovens	
		ii)	Crust and crumb	
		iii)	Maillard reaction and caramelization	
		iv)	Cold extrusion and hot extrusion	
		v)	Sponge dough and straight dough	
	b)	What is an extrusion process? Explain the principle of extrusion with a neat diagram. List down two notable changes in food caused by extrusion.		1+5+2=8
	c)	Write some advantages of extrusion. Enlist two examples of extruded products.		2+2=4
7.	a)	What are ready-to-eat cereals? What process usually occur during the production of ready-to-eat cereals rather than gelatinization?		2+1=3
	b)	Discuss the benefits of regular consumptions of breakfast cereals.		4
	c)	What are snack foods? Briefly describe the three types of snack foods		2+3=5

		and give one example of each type.	
	d)	Write down the names and functions of essential ingredients used in bread making.	6
	e)	What is meant by lactose intolerance and gluten intolerance?	1+1=2