1B2A25414 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Degree Examination, April 2025

BOT2CJ101 – Microbial Diversity & Phytopathology

(FYUGP 2024 Admission)

Time: 2 hours Max. Marks : 70

PART – A

All questions can be attended.
Each question carries **Three** mark.
Ceiling -24 Marks

		COs	Knowledge Level(KL)	Marks
1	Explain the evolutionary significance of Whittakker's classification.	CO1	F	3
2	Write a note on spreading of H1N1.	CO1	F	3
3	Explain the peculiarities of Halophiles.	CO3	E	3
4	Explain the mechanism of action of Tetracyclin	CO4	Ap	3
5	What are the gene transfer mechanisms in bacteria?	CO4	Ap	3
6	What is Bioaugmentation?	CO1	R	3
7	What are Probiotics?	CO1	R	3
8	How microbes help in plant growth?	CO4	P	3
9	Write notes on Koch's postulates.	CO2	F	3
10	Differentiate between chlorosis and necrosis.	CO2	F	3

PART – B

All questions can be attended.
Each question carries **six** marks.
Ceiling -36 Marks

		COs	Knowledge Level(KL)	Marks
11	Draw and explain the structure of a Bacteriophage.	CO3	R&F	6
12	Compare the cell walls of gram-positive and gram-negative bacteria. Why infection of gram-negative bacteria is more pathogenic?	CO3	An &Ap	6
13	What are the applications of viruses in genetic engineering?	CO1	C	6

14	How a pure culture of bacteria is established?	CO3	C	6
15	How atmospheric nitrogen is fixed? Mention the role played by microbes in fixation.	CO4	Ap	6
16	Add a note on defense mechanisms in plants.	CO2	Ap	6
17	Explain the role of Bacteria in Fermentation.	CO4	P	6
18	Write a detailed note on any of the Bacterial disease you have studied.	CO2	R	6

PART - C

Answer any ***one*** questions.
Each question carries **Ten** marks.

		COs	Knowledge Level(KL)	Marks
19	Write an essay on gene transfer mechanisms in Bacteria.	CO3	F	10
20	Explain the typical structure of Virus. Explain its multiplication.	CO1	F	10

1 x 10 = 10 Marks

1B2A25415 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Degree Examination, April 2025

BOT2MN103 – Plant Nutraceuticals

(FYUGP 2024 Admission)

Time: 2 hours Max. Marks : 70

PART – A

All questions can be attended.
Each question carries **Three** marks.
Ceiling -24 Marks

No	Question	COs	Knowledge Level(KL)
1	Mention two benefits of consuming nuts for heart health.	CO3	U
2	Elaborate on how FSSAI ensures the safety and efficacy of functional foods in India.	CO1	U
3	List two sources of polyunsaturated fatty acids.	CO2	K
4	Analyse how omega-3 fatty acids contribute to arthritis management.	CO3	An
5	Differentiate between nutritive and non-nutritive food components.	CO1	Ap
6	Discuss the historical perspective and evolution of nutraceutical science.	CO1	U
7	Explain how nutraceuticals bridge the gap between food and drugs.	CO1	U
8	Analyse the role of probiotics in ulcer treatment.	CO3	An
9	List three algae-based nutraceuticals and their benefits.	CO2	K
10	Discuss the relationship between nutraceuticals and cancer prevention.	CO3	U

PART – B

All questions can be attended.
Each question carries **Six** marks.
Ceiling -36 Marks

No	Question	COs	Knowledge Level(KL)
11	Explain the role of carotenoids, tocotrienols, and lycopene in preventing diseases.	CO3	U
12	Compare CODEX and EU guidelines in terms of food safety standards and regulations?	CO1	U
13	List nutraceuticals beneficial for liver health, along with their sources and therapeutic applications.	CO3	K
14	Explain the concept of free radicals and the role of antioxidants in combating oxidative stress, with examples of antioxidant-rich foods.	CO2	U
15	Discuss the impact of nutraceutical interventions on circulatory problems and hypoglycemia.	CO3	Ap

16	Evaluate the effects of caffeine and green tea on the human body?	CO3	Ap
17	Analyse the role of functional foods in managing stress and hypertension.	CO3	An
18	Explain the relationship of nutraceutical science with medicine, human physiology, and nutrition.	CO1	U

PART - C

Answer any ***one*** questions.
Each question carries **Ten** marks.

No	Question	COs	Knowledge Level(KL)
19	Explain how different food processing techniques, storage and interactions of various environmental factors impact the bioavailability and potential of functional foods.	CO1	U
20	Comment on the role of various fruit-based nutraceuticals, in disease prevention and health promotion. Provide examples.	CO3	Ap

1B2A25416 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Degree Examination, April 2025

BOT2FM106(2) – Plant in Everyday Life

(FYUGP 2024 Admission)

Time: 1.5 hours Max. Marks : 50

PART – A

All questions can be attended.
Each question carries **Two** mark.
Ceiling -16 Marks

		COs	Knowledge Level(KL)	Marks
1	List out any two uses of black pepper.	CO2	Remember	2
2	Differentiate between cereals and millets. Give examples.	CO2	Analyze	2
3	Identify two plants significant in rituals and festivals. Mention the parts traditionally used.	CO1	Understand	2
4	Explain the significance of lichens in detecting air pollution.	CO2	Understand	2
5	How does Red Amaranth contribute to better health?	CO2	Understand	2
6	Mention any two uses of teak wood.		Remember	2
7	Identify two common legumes and mention their nutritional benefits.	CO2	Understand	2
8	Explain the significance of organic manure in agriculture	CO1	Understand	2
9	Mention two fibres of plant origin.	CO1	Remember	2
10	Name the useful part of tea and clove	CO1	Remember	2

PART – B

All questions can be attended.
Each question carries **six** marks.
Ceiling -24 Marks

		COs	Knowledge Level(KL)	Marks
11	Explain the botanical source, useful plant part, and medicinal properties of Tulsi.	CO2	Understand	6
12	Evaluate the uses and benefits of Eucalyptus oil and clove oil	CO5	Evaluate	6
13	Discuss the step-by-step process of tea manufacturing.	CO2	Analyze	6

14	Describe the plant source, formulation process, and advantages of a natural shampoo	**CO2**	**Understand**	**6**
15	Describe the extraction sources and benefits of Coconut and Sesame oils.	**CO2**	**Understand**	**6**

PART - C

Answer any ***one*** questions.
Each question carries **Ten** marks.

		COs	**Knowledge Level(KL)**	**Marks**
16	Describe in detail the method of preparation, advantages, and limitations of compostable garbage bags and tableware	**CO2**	**Understand**	**10**
17	Analyse the role of starch and tuber crops in food security. Compare their nutritional value and economic importance	**CO3**	**Analyze**	**10**

1 x 10 = 10 Marks