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Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Degree Examination, April 2025

ZOO2CJ101 – Environmental Biology & Animal Behaviour

(FYUGP 2024 Admission)

Time: 2 hours

Max. Marks : 70

PART – A

All questions can be attended.
Each question carries **Three** marks.

Ceiling -24 Marks

		COs	Knowledge Level(KL)	Marks
1	What are the main differences between lentic and lotic habitats	CO2	R	3
2	Differentiate between predation and parasitism giving examples	CO2	U	3
3	Explain how the second law of thermodynamics explains the insufficiency of energy transfer in ecosystem	CO1	U	3
4	Define innate behavior and give two examples	CO3	U	3
5	Draw a food web in a forest ecosystem	CO1	U	3
6	Describe Fixed action patterns in animals. Give an example	CO3	U	3
7	Explain allelopathy with an example	CO2	U	3
8	Describe different types of ecological pyramids	CO1	U	3
9	Describe how animals use chemical signals to communicate. Give an example	CO4	U	3
10	Write any two characteristics that differentiate tundra and taiga biome	CO2	R	3

PART – B

All questions can be attended.
Each question carries **six** marks.

Ceiling -36 Marks

		COs	Knowledge Level(KL)	Marks
11	Explain the different types of population dispersion patterns. Describe the factors influencing population fluctuations	CO2	U	6
12	Describe the concept of primary productivity and its importance in ecosystems	CO1	U	6

13	Describe the concept of a terrestrial ecosystem and discuss the different types of terrestrial ecosystems	CO6	R	6
14	Explain the Plastic Waste Management Rules 2016	CO2	U	6
15	Describe the social organization of termites	CO4		6
16	Write the faunal adaptations of benthic realm	CO6	R	6
17	Explain different types of communication.	CO2	U	6
18	Define an ecosystem. What are the different types of ecosystems.	CO1	R	6

PART - C

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

		COs	Knowledge Level(KL)	Marks
19	Explain the processes involved in carbon cycle	CO1	U	10
20	Explain different types of learned behaviour	CO4	U	10

1 x 10 = 10 Marks

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
 Second Semester B.Sc Degree Examination, April 2025

ZOO2MN101 – Introductory Human Physiology

(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	Define homeostasis and explain its significance in the human body.	6	U	3
2	What are the different branches of human physiology?	1	R	3
3	Explain the term "BMI" and discuss its significance.	5	Ap	3
4	Describe the structure and function of hemoglobin.	3	U	3
5	List the factors influencing oxygen transport in blood.		U	3
6	What is the importance of the ECG in cardiovascular physiology?	3	U	3
7	Explain Vital Capacity.	2	R	3
8	Explain the role of neurotransmitters in synaptic transmission.	4	U	3
9	What is the significance of ESR in clinical diagnostics?	3	U	3
10	List the types of muscles in the human body and their primary functions	4	R	3

PART – B

All questions can be attended.
Each question carries six marks.

Ceiling -36 Marks

		COs	Knowledge Level(KL)	Marks
11	Describe the different levels of physiological regulation in the human body and give examples.	1	U	6
12	Explain the process of oxygen dissociation and the factors that influence it.	2	U	6
13	Discuss the structure and functions of blood and explain the process of hemostasis.	3	U	6
14	Define and explain the various cardiovascular disorders such as hypertension, myocardial infarction, and angina pectoris.	3	R	6
15	Discuss the different types of lung volumes and their significance in respiratory physiology.	2	Ap	6
16	Explain the sliding filament theory of muscle contraction and the role of calcium ions.	4	U	6
17	Describe the role of the kidneys in osmoregulation and the hormonal control of urine formation.	6	U	6
18	Explain the physiological causes of peptic ulcers and their impact on the digestive system.	1	U	6

PART - C

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

		COs	Knowledge Level(KL)	Marks
19	Discuss the physiological processes involved in oxygen and carbon dioxide transport, and the factors influencing gas exchange.	2	U	10
20	With appropriate illustration describe the propagation of nerve impulse.	4	U	10

1 x 10 = 10 Marks

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Degree Examination, April 2025

ZOO2MN102/ZOO2MN202 – Neurophysiology

(FYUGP 2024 Admission)

Time: 2 hours

Max. Marks : 70

PART – A

All questions can be attended.
Each question carries **Three** mark.

Ceiling -24 Marks

SL No	Questions	COs	Knowledge Level(KL)	Marks
1	List the main types of glial cells and their functions?	CO1	Remember	3
2	Discuss the role of the autonomic nervous system in regulating bodily functions.	CO1	Understand	3
3	How do spinal cord injuries affect reflex actions?	CO2	Apply	3
4	Examine the roles of neurotransmitters in the central nervous system?	CO4	Analyze	3
5	Assess the effect of cerebellar damage on motor control.	CO3	Evaluate	3
6	Differentiate between Wernicke's area and Broca's area	CO4	Create	3
7	Discuss the impact of sleep deprivation on cognitive functions	CO4	Understand	3
8	Outline how does the brain process visual information?	CO4	Analyze	3
9	Describe different types of brain waves?	CO6	Understand	3
10	How is the blood-brain barrier formed and what is its function?	CO6	Apply	3

PART – B

All questions can be attended.
Each question carries six marks.

Ceiling -36 Marks

		COs	Knowledge Level(KL)	Marks
11	Compare and contrast the central nervous system (CNS) and the peripheral nervous system (PNS) in terms of structure and function	CO1	Analyze	6
12	Describe the process of nerve impulse generation and propagation along a neuron	CO1	Understand	6
13	Illustrate the reflex arc and its components with examples of monosynaptic and polysynaptic reflexes.	CO2	Apply	6
14	Explain how the basal ganglia influence muscle control and movement.	CO3	Analyze	6
15	Discuss the anatomical structure and the roles of the cerebellum in motor control and coordination.	CO3	Evaluate	6
16	Explain the functions of the brain in communication	CO4	Analyze	6
17	Outline the techniques used in neurophysiology for brain imaging and their relevance in medical diagnostics.	CO6	Understand	6
18	Discuss a theory on the role of the limbic system in emotion and memory	CO6	Evaluate	6

PART - C

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

		COs	Knowledge Level(KL)	Marks
19	Evaluate the classification of CNS system, their characteristics, and roles in control and co-ordination.	CO2	Evaluate	10
20	Explain the functions of the cerebellum in overall motor control.	CO3	U	10

1 x 10 = 10 Marks

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Degree Examination, April 2025

ZOO2FM205(1) – Aquaculture and Ornamental Fish Farming

(FYUGP 2024 Admission)

Time: 1.5 hours

Max. Marks : 50

PART – AAll questions can be attended (Each question carries **Two** mark)**Ceiling -16 Marks**

		COs	Knowledge Level(KL)	Marks
1	Add the name of any two commercially important aquaculture species in India	CO1	U	2
2	Describe the key characteristics of monoculture and polyculture aquaculture systems	CO1	U	2
3	Give an account of pen culture in aquaculture techniques	CO1	U	2
4	Discuss any two vital role of public aquariums	CO2	U	2
5	Express the quarantine facility in aquaculture	CO3	A	2
6	Expose the difference between dry feeds and the live feeds for aquarium fish	CO3	A	2
7	Provide any two benefits of chemical anaesthesia most widely used for fishes	CO4	A	2
8	“A fish farm is considering switching from a commercial feed to formulated feed”. Explore the key benefits of using formulated feeds in this scenario	CO4	A	2
9	A fish processor is packing fresh fish for retail sale. Suggest the packaging feature would help to maintain fish freshness and prevent spoilage.	CO4	A	2
10	A beginner aquarist wants to keep livebearer fish species that are tolerant to minor water quality fluctuations. Suggest him any two suitable fish species	CO4	A	2

PART – B

All questions can be attended (Each question carries six marks)

Ceiling -24 Marks

		COs	Knowledge Level(KL)	Marks
11	Elaborate how pearl farmers cultivate pearl in controlled environment	CO1	U	6
12	Describe about aquaculture in Kerala and list out different aquaculture methods suitable for Kerala	CO1	U	6
13	Explain the importance of aquaria management for successful fish keeping in ornamental fish farming	CO2	U	6
14	Provide the details of different types of aquarium used for ornamental fish farming	CO3	A	6
15	Explore the different types of accessories used in aquarium	CO3	A	6

PART - C

Answer any *one* questions (Each question carries Ten marks)

		COs	Knowledge Level(KL)	Marks
16	Explain different types of aquariums available today and how do they differ in functions.	CO3	A	10
17	Examine various diseases, causes and its control measures of aquarium fishes	CO4	A	10

1 x 10 = 10 Marks