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GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY UNIVERSITY, ODISHA, GUNUPUR

(GIET UNIVERSITY)

M. Sc. (Fourth Semester) Regular Examinations, April – 2025

22LSASPC404 – Animal Physiology and Taxonomy

(Life Science- Animal Science)

Time: 3 hrs | Maximum: 70 Marks

(The figures in the right hand margin indicate marks.)

PART – A **(2 x 10 = 20 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. Define cardiac cycle.	CO1	K2
b. Differentiate between cosmopolitan and bipolar distribution.	CO3	K4
c. Define chemotaxonomy.	CO4	K2
d. Mention the role of nephron in excretion.	CO1	K2
e. Define convergent evolution.	CO3	K1
f. Define natural selection with an example.	CO2	K2
g. What is the role of taxonomy in biology?	CO4	K2
h. Define systole and diastole.	CO1	K2
i. What is a species concept?	CO4	K2
j. Give an example of convergent evolution and explain.	CO2	K3

PART – B **(10 x 5 = 50 Marks)**

Answer ***ANY FIVE*** questions	Marks	CO #	Blooms Level
2. Discuss the impact of continental drift on species evolution and extinction.	10	CO3	K4
3.a. Describe the physiology of vision.	5	CO1	K2
b. Describe the process of fossilization.	5	CO2	K2
4. Explain the physiology of excretion with a neat diagram of the nephron.	10	CO1	K3
5.a. Outline the process of muscle contraction.	5	CO1	K3
b. Explain the function of different digestive enzymes.	5	CO1	K4
6. a. Explain Hardy-Weinberg equilibrium with a simple example.	5	CO3	K2
b. Discuss how molecular taxonomy has changed traditional classification systems.	5	CO3	K4
7. Describe in detail the general classification of Animal Kingdom with suitable examples from each phylum.	10	CO4	K3
8. a. Analyse the importance of fossil records in tracing the evolutionary lineage of mammals.	5	CO2	K4
b. Explain the modern synthetic theory of evolution.	5	CO3	K2

End of Paper