

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2023
(Second Semester)

Branch – ZOOLOGY

ANIMAL PHYSIOLOGY AND BIOCHEMISTRY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- Name Factor IX is otherwise called as -----.
(i) Fibrinogen (ii) Stuart-Prower factor
(iii) Prothrombin (iv) Christmas factor
- Find Normal GFR is----- during urine formation in Man.
(i) 180 mL/minute or about 125 L/day (ii) 18 mL/minute or about 12.5 L/day
(iii) 125 mL/minute or about 180 L/day (iv) 12.5 mL/minute or about 18 L/day
- Which one is an excellent example for excitatory neurotransmitter?
(i) Serotonin (ii) Acetylcholine
(iii) GABA (iv) Dopamine
- State which one is an example of ketose sugar?
(i) fructose (ii) galactose
(iii) glucose (iv) ribose
- Choose an example for Co-enzyme from following:
(i) RNA ase (ii) Lactate dehydrogenase
(iii) DNA ase (iv) NAD+

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- a) Discuss the different components of ECG.
(OR)
b) Analyze temperature regulation strategies in homeotherms.
- a) Illustrate the structure of nephron.
(OR)
b) Biorhythms are found in almost all the major taxonomic groups of animal kingdom Justify.
- a) Organize the events during process of synaptic transmission.
(OR)
b) Critically analyze the ultra structure of skeletal muscle.
- a) Classify the carbohydrates with suitable examples.
(OR)
b) Explain different steps of β -oxidation of fatty acids.
- a) Analyze the mechanism of enzyme action with suitable theories.
(OR)
b) State the list of different co-enzymes that take part in metabolism.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a) Analyze the mechanism of blood clotting process.
(OR)
b) Criticize the mechanism of transport of O₂.
- 12 a) Determine the mechanism of formation of urine in Man.
(OR)
b) Explain how does chemical reaction causing Bioluminescence happen?
- 13 a) Classify the neurotransmitters with cited examples.
(OR)
b) Evaluate the electrical events during process of hearing.
- 14 a) Illustrate the different structural configuration level of proteins.
(OR)
b) Sketch the steps involved in TCA cycle.
- 15 a) Categorize the different classes of enzymes.
(OR)
b) Describe the term isoenzymes with cited examples.

Z-Z-Z END