

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain about stress avoidance and stress tolerance.

Or

- (b) Enumerate the adaptation found in the Desert animal.

17. (a) Explain the osmoregulation in marine environment.

Or

- (b) Associate the Yoga and good health.

18. (a) Explain the functions of respiratory pigments.

Or

- (b) Write down the neural and chemical regulation of respiration.

19. (a) Illustrate about the mechanism of excretion.

Or

- (b) Explain the following; (i) Parturition  
(ii) Feed back regulation

20. (a) Summarises the Conduction of nerve impulses through neurons.

Or

- (b) Defend the Neuro degenerative diseases

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M.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2023

Third Semester

Zoology – Core

COMPARATIVE ANIMAL PHYSIOLOGY

(For those who joined in July 2021-2022 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Identify the kind of adaptations found in the desert animal.  
(a) impervious skin  
(b) goblet cells  
(c) pneumatophores  
(d) stream lined body
2. Name the ability of organisms to maintain internal stability in response to the changes.  
(a) osmoregulation (b) homeostasis  
(c) diffusion (d) inheritance





3. Select the animal in which hypotonic body fluid is maintained.  
(a) marine protozoa (b) marine fish  
(c) fresh water fish (d) endoparasites
4. Show one of the following which helps to excrete out the excess salts in the marine fish.  
(a) Lungs  
(b) kidney  
(c) glomerular kidney  
(d) chloride secretory cells
5. Write down the blue coloured respiratory pigment.  
(a) haemocyanin (b) haemoglobin  
(c) echinochrome (d) chlorocruorin
6. Predict the total capacity of the human lung  
(a) 1-2 lit (b) 5-6 lit  
(c) 7-8 lit (d) 3 lit
7. Select the excretory products of Reptiles and birds.  
(a) urea (b) ammonia  
(c) uric acid (d) creatine
8. Select the term related with the process of producing milk from the mammary gland.  
(a) parturition (b) child birth  
(c) adsorption (d) Lactation
9. Choose the name of the junction formed between two neurons.  
(a) synapse (b) synopsis  
(c) erythroptosis (d) neurosis

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10. Select one of the neural degenerative disease.  
(a) cancer (b) Parkinson's disease  
(c) leprosy (d) dysentery

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Enumerate the extreme terrestrial environment.  
Or  
(b) Differentiate Acclimation and Acclimatization
12. (a) Explain the meditation and its effect.  
Or  
(b) Illustrate the physiological adaptation to osmotic stress.
13. (a) Illustrate the transport of gases between lung and tissues.  
Or  
(b) Illustrate the Bohr effect.
14. (a) Summarises about gonadal axis.  
Or  
(b) Differentiate aminotelism and Uricotelism.
15. (a) Summarises the neurotransmitters and its uses.  
Or  
(b) Defend the Muscle contraction process.

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