

3 (Sem-5) ZOO M 1

2020

(Held in 2021)

ZOOLOGY

(Major)

Paper : 5.1

(**Animal Physiology**)

Full Marks : 42

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

GROUP—A

(*Marks : 21*)

1. Choose the correct answer of the following :

1×2=2

(a) Which of the following plays a crucial role in fat absorption?

(i) Pancreatic juice

(ii) Bile

(iii) GI hormone

(iv) Intestinal juice

(b) Column of Bertin is present in

(i) heart

(ii) nerve cell

(iii) kidney

(iv) muscle

2. Answer the following :

2×2=4

(a) Differentiate between myelinated and non-myelinated nerve fiber.

(b) What is dead space?

3. Answer any *three* questions from the following :

5×3=15

(a) State the role of pancreatic juice in digestion of protein.

(b) How is breathing regulated?

(c) What are the functions of leucocytes?

(d) Describe the mechanism of water and electrolyte absorption.

(e) Write briefly about the generation and propagation of a nerve impulse.

(3)

GROUP—B

(Marks : 21)

4. Answer any *three* questions from the following : 7×3=21

(a) Is it essential that fat should be hydrolyzed completely for absorption? Discuss.

(b) Define oxygen dissociation curve. Can you suggest any reason for its sigmoidal pattern? 5+2=7

(c) Explain the mechanism of formation of concentrated urine in mammals.

(d) What is 'all or nothing' principle? Describe the process of impulse transmission through a non-myelinated nerve. 2+5=7

(e) How do marine and freshwater fish maintain osmotic homeostasis?

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