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University of Mumbai

Semester – III Examination, 2018

Class: SYBSc

Course: Zoology VI

Course Code: USZO 302

Paper: II

Animal Physiology

Marks: 100

Date:

Time: 03

MODEL ANSWER KEY

- Q.1 A) Fill in the blanks by choosing the correct options given below** 05
- a) Parasitic
- b) Medulla
- c) Trachea
- d) One
- e) Ganglionated
- B) Match the columns I and II and rewrite** 05
- | Column I | Column II |
|-----------------------|-----------------|
| a) <i>Food vacule</i> | iv. Amoeba |
| b) Wheel Organ | v. Amphioxus |
| c) Open Circulation | i. Insects |
| d) Nerve net | ii Hydra |
| e) Multiple fission | iii. Plasmodium |
- C) State whether True or False** 05
- a) False
- b) False
- c) True
- d) False
- e) True
- D) Define the following.** 05
- a) **Rumen:** It is the largest chamber of stomach, where unmasticated food is stored.
- b) **Cutaneous respiration:** Respiration by means of skin surface.
- c) **Chemotrophism:** Response to chemicals by an animal.
- d) **Monocytes:** It is an agranulocyte with ovoid or kidney shaped nucleus, it protects the body against harmful microorganisms.
- e) **Polyspermy:** A condition when more than one sperm enters the ovum.
- Q.2 A) Physiology of digestion in man** 10
1. Introduction: 02
2. Description of digestion process 08

Q.2

OR

- A) Discuss physiology of urine formation in man
- 1. Introduction: 01
 - 2. Description: 06
 - 3. Example 03
- B) Explain any two from the following. 10
- a) Formation of food vacuoles in Amoeba 05
- 1. Introduction 01
 - 2. Description: 03
 - 3. Diagram 01
- b) Types of nutrition 05
- 1. Introduction 01
 - Description: 04
- c) Structure of renal tubules
- 1. Introduction 01
 - 2. Description: 03
 - 3. Diagram 01
- d) Flame cells in Planaria 05
- 1. Introduction 01
 - 2. Description: 02
 - 3. Diagram 02
- Q.3 A) Describe briefly Air sacs in pigeon 10
- 1. Introduction 01
 - 2. Description: 07
 - 3. Diagram 02

OR

- a Components of blood with suitable example 10
- 1 Introduction 01
 - 2 Description 06
 - 3 Diagram 03
- 3 B) Explain any two of the following 10
- a) Types of respiration
- 1. Introduction 01
 - 2. Description: 02
 - 3. Types 02
- b) Structure of lungs in frog
- 1. Introduction 01
 - 2. Description: 03
 - 3. Diagram 01

Q3

c)	Open circulation	
1.	Introduction	01
2.	Description:	03
3	Diagram	01
d)	Internal structure of heart of man	
1.	Introduction	01
2.	Description:	03
3.	Diagram	01
4.	A) Comment on structure and types of fins in fish	10
1.	Introduction	01
2.	Description:	05
3	Example	02
4	Diagram	02
	OR	
A)	Comment on spermatogenesis with diagram	
1.	Introduction	01
2.	Description:	06
3	Diagram	03
B)	Attempt any Two	10
a	Structure of cilia	
1.	Introduction	01
2.	Description:	03
3	Diagram	01
b)	Structure of striated muscle fibres	05
1.	Introduction	01
2.	Description:	03
3	Diagram	01
c)	Structure of egg in human	
1.	Introduction	01
2.	Description:	02
3	Diagram	02
d)	Classification of fertilization	
1	Introduction	01
2	Description	02
3	Example	02
5	Write short notes	20
a	Physiology of digestion in mouth	
1.	Introduction	01

04

2.	Description:	03
3	Reaction	01
b) Contractile vacuoles in amoeba		
1.	Introduction	01
2.	Description:	03
3	Diagram	01
c) Book lungs of spider		
1	Introduction	01
2	Description	03
3.	Diagram	01
d) Double circulation		
1	Introduction	01
2	Description	03
3	Diagram	01
e) Types of neurons on basis of structure		
1	Introduction	01
2	Description	03
3.	Diagram	01
f) Viviparity		
1	Introduction	01
2	Description	03
3.	Examples	01
