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Reg. No. :

Code No. : 11642 E **Sub. Code : JAZO 21/
SAZO 21**

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2019.

Second/Fourth Semester

Zoology – Allied

**DEVELOPMENTAL ZOOLOGY, ECOLOGY,
ANIMAL PHYSIOLOGY AND EVOLUTION**

(For those who joined in July 2016 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. A small opening formed during the gastrulation process is
- (a) Archenteron (b) Blastocoel
- (c) Blastopore (d) Coelomic cavity

2. Syndesmochorial Placenta is found in

- (a) Dog (b) Horse
- (c) Sheep (d) Man

3. The organisms which can tolerate very wide fluctuations in temperature are called

- (a) Eurythermal (b) Heterothermal
- (c) Mesothermal (d) Stenothermal

4. The fight between two animals for a common resource is called

- (a) Competition (b) Neutralism
- (c) Parasitism (d) Predation

5. The break down of glycogen to glucose is called

- (a) Decarboxylation (b) Glycogenesis
- (c) Glycogenolysis (d) Glycolysis

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6. The haemoglobin that is present in the muscle is called

- (a) Haemocyanin
- (b) Myoglobin
- (c) Oxy haemoglobin
- (d) Pinnaglobin

7. The kidney is made up of capillaries and tiny tubes are called _____.

- (a) Axons
- (b) Dendrons
- (c) Nephrons
- (d) Neurons

8. The period of Pre-menstrual phase is

- (a) 2 days
- (b) 5 days
- (c) 9 days
- (d) 14 days

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9. Darwin extended his trip around the world for scientific observations in the British ship _____.

- (a) H.M.S. Frolic
- (b) H.M.S. Illustrians (RO6)
- (c) H.M.S. Beagle
- (d) Royal Alexandra's

10. Example of warning mimicry

- (a) Drongo
- (b) Lophius
- (c) Lycodon
- (d) Phyllium

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Write a brief account on Twins.

Or

(b) Explain the role of Nucleus in the morphogenesis of Acetabularia.

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12. (a) Define parasitism with example.

Or

- (b) Define the various component in pond Ecosystem.

13. (a) Explain the glycogenolysis.

Or

- (b) Explain O₂ Dissociation curve.

14. (a) Explain the structure of Human nephron.

Or

- (b) Elucidate the role of Hormones involved in pregnancy and lactation.

15. (a) Give an account on struggle for existence.

Or

- (b) Write an account on variation.

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PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Explain the types of placenta with suitable examples.

Or

- (b) Describe the various aspects involved in the development of Test tube baby.

17. (a) Explain "Temperature as an important ecological factor" with the help of various rules.

Or

- (b) Write an essay on Desert Adaptations.

18. (a) Explain the role of enzymes in protein digestion.

Or

- (b) Describe in detail about Kreb's cycle.

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19. (a) Explain the transmission of nerve impulses through Neuron and synapse.

Or

- (b) Write an account on the role of hormone and its control on human female reproductive cycle.

20. (a) Explain the mutation theory of Hugo Devries.

Or

- (b) Discuss mimicry and colouration in adaptation.
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