Total No. of Printed Pages: 2

SUBJECT CODE NO: - FF-6661
FACULTY OF SCIENCE AND TECHNOLOGY
M.Sc. (Sem-III) (Zoology)
Examination January-2023
B - Animal Physiology-I ZOO-311

[Time: 3:00 Hours] **[Max. Marks:80]**

Please check whether you have got the right question paper.

N. B
1) Part A is compulsory
2) Attempt any five question from Part B
3) Draw neat diagram when ever necessary

Part –A

Q1 Attempt the following multiple choice questions- 20

1) Abdominal flap of male crab is ------ shaped.
   a) Narrow triangular b) Broad rounded
   c) Slender d) None of these

2) Respiration by dermal gills (branchiae) and respiratory tree is performed by -----
   a) Mollusca b) Echinodermata c) Arthropoda d) protochordata

3) Gall midges possesses -------
   a) Larval paedogenesis b) Pupal paedogenesis c) apodictic d) cyclic

4) In echinoderms the -------is a large fluid filled cavity in which digestive tube and sex organ are suspended.
   a) Pyloric stomach b) central disc
   c) perivisceral coelom d) none of these

5) Which hormone is responsible for insect metamorphosis
   a) Ecdysteroids and Juvenile hormones
   b) Thyroid hormone
   c) Gonad stimulating hormone
   d) All of the these

6) Ommatidia are found in ----------
   a) Eye of Mollusca b) eye of insect
   c) eye of echinoderms d) none of these

7) The crustacean egg hatch to produce ---
   a) Protozoea b) Nauplius larva c) Mysis d) all of the above

8) The excretory organ of Mollusca are ----------
   a) Metanephridia b) Nephridia c) Green gland d) protonephridia

9) The -------are neurosecretory organ that surround the crustacean heart
   a) Anal organ b) pericardial organ c) anterior organ d) none of these

10) Open circulatory system is present in -------
   a) Annelids and chordates b) annelids and arthropods
   c) arthropods and chordates d) arthropods and Mollusks

Part –B

Attempt any five

Q2 Write osmotic and ionic regulation of crustacea. 12

Q3 Explain structure and function of photoreceptors, mechanoreceptors and chemoreceptors in insects. 12

Q4 Describe sexual development and maturation in annelids 12

Q5 Give an account of structural properties and functions of respiratory pigment in Mollusca 12

Q6 Explain coelomic fluid and coelomocytes in Echinodermata 12

Q7 Describe types of reproduction and hormonal control in crustacea. 12

Q8 Write notes on (any two) 12
   a) Pericardial organ in crustacea
   b) Regeneration in Echinoderms
   c) Excretion in Mollusca