



HCV-003-001324

Seat No. _____

B. Sc. (Sem. III) (CBCS) Examination

October/November – 2017

Zoology : P - Z - 301

*(Non-chordates, Cell Biology, Genetics, Animal Behavior,
Economic Zoology & Bionomic & Human Diseases)
(Old Course)*

Faculty Code : 003

Subject Code : 001324

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instruction :** (1) Draw neat and labeled diagram wherever necessary.
(2) Figures to the right side indicate full marks for the question.

- 1** Answer the following questions in short or in one word : **20**
- (1) How many pairs of embryonic ganglia fuse together in subpharyngeal ganglionic mass.
 - (2) Hirudinaria granulose is the scientific name of _____.
 - (3) Pseudopodia, Flagella, and Cilia are locomotary organells of _____ phylum.
 - (4) Name the three classes of phylum platyhelminthes.
 - (5) Pila belongs to class _____ of phylum mollusca.
 - (6) Name the three part of body organization in pila.

- (7) Cockroach and Grasshopper have the _____ type of mouth parts.
- (8) Bees and wasps have the piercing and sucking type of mouth parts. (True or False)
- (9) Who named ribonucleo-protein particles as ribosomes ?
- (10) Which organelle is known as suicidal bag of cells ?
- (11) Which type of chromosome have the almost equal size of arms ?
- (12) Who discovered polytene chromosomes ?
- (13) How many queen remain present in one hive in honey bee ?
- (14) The allosomes contain gene which determine the somatic characters of the organisms. (True or False)
- (15) In the polytene chromosomes the dark bands contain more _____ and less _____.
- (16) Bacilli bacteria are _____ shaped.
- (17) Entomology is the study of _____.
- (18) Write the formula of SD for individual series.
- (19) Name the antiviral medicine for H1N1.
- (20) Tuberculosis is caused by viruses. (True or False)

2 (A) Answer any three out of six :

6

- (1) Classify Loligo. (Characters not needed)
- (2) Explain Anulli in leech.
- (3) Draw labelled diagram of siphoning type of mouth parts.
- (4) Explain courtship behavior in stickle back.
- (5) Explain morphology of silverfish.
- (6) Explain standard deviation.

(B) Answer any three out of six : 9

- (1) Write general characters of phylum arthropoda.
(any six)
- (2) Explain cocoon formation in Leech.
- (3) Explain Hemipterous mouth parts.
- (4) Explain the function of Golgi apparatus.
- (5) Explain Kappa particles in paramecium.
- (6) Find the standard deviation from the following data :

| | | | | | | | | | |
|------------------|---|---|---|---|---|---|---|---|---|
| Sr.no of insects | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Length of insect | 3 | 5 | 6 | 2 | 4 | 1 | 1 | 2 | 3 |

(C) Answer any two out of five : 10

- (1) Draw labeled diagram of nervous system and explain central nervous system in leech.
- (2) Write a short note on lysosome.
- (3) Explain social behavior in termite.
- (4) Explain Rice-weevil as damaging food products.
- (5) Write a note on AIDS.

3 (A) Answer any three out of six : 6

- (1) Explain the copulation in Leech.
- (2) Name any two fish species which do not built nest.
- (3) Describe hazards of house fly.
- (4) Describe divison of labour in termite.
- (5) Name the classes of Echinodermata with their examples.
- (6) Explain how crop rotation is useful in insects pest management.

(B) Answer any three out of six : 9

- (1) Draw a labeled diagram of body after removing the shell in pila.
- (2) Explain types of Ribosomes.
- (3) Describe biological control of insects.
- (4) Classify starfish and write characters of its class.
- (5) Explain dipterous mouth parts.
- (6) Find out the range and coefficient of range of the following observations :

| | | | | | | | | | |
|-----|---|---|---|----|----|----|----|----|----|
| x | 5 | 6 | 8 | 11 | 12 | 15 | 17 | 18 | 20 |
| y | 3 | 5 | 7 | 6 | 5 | 8 | 9 | 4 | 9 |

(C) Answer any two out of five : 10

- (1) Describe giant chromosome.
- (2) Write a note on parental care.
- (3) Explain digestive system of pila with diagram.
- (4) Explain 'Swine-Flue'.
- (5) Describe testicular nephridia of Leech.
