39 B

2M18115 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Zoology Degree Examination, March 2018

BZOL2B02 – Animal Diversity Nonchordata II

(2017 Admission onwards)

ax. Time: 3 hours Max. Marks : 80

I. One Word Questions (Answer all the Questions)

1. What is madreporite?
2. Name the anticoagulant present in saliva of leech.
3. What is osphredium?
4. Name the larval stage of Neries.
5. What are dermal ossicles?
6. What is ecdysis?
7. Name the nerves that connect dissimilar ganglia.
8. Name the larva of Limulus,
9. What is radula?
10. What is the jaw apparatus of sea urchin? **(10x1=10 Marks)**

II. Paragraph questions (Answer any ten questions)

11. What are pedicellariae? Mention its functions.
12. Write salient features of hemichordate with example.
13. Enlist the salient features of Phylum Annelida.
14. Assign the following animals to their respective phyla.
    a) *Limulus* b) *Neries* c) *Pila* d) *Astropecten*
15. What is statocyst? Mention its function.
16. Discuss the affinities of Peripatus.
17. Explain Parasitic castration in *Sacculina.*
18. Enlist any four adaptations of *Hirudinaria.*
19. What is heteroneries? Enlist any two salient features.
20. Describe the adaptive features of *Arenicola.*
21. What is ink sac? Mention its function?
22. What is petasma? Write its function. **(10 x 2= 20 Marks)**

III. Short Answer Questions (Answer any five questions)

23. With the help of neat labeled diagrams, give an account of cephalic appendages in *Penaeus*.
24. Write the morphological peculiarities of Balanoglossus.
25. Describe the water vascular system of Star fish.
26. Describe the Pallial complex of *Pila*.
27. Give an account of *Perna*. Mention its economic importance.
28. Write notes on Holothuria.
29. With the help of a neat labeled diagram explain the structure of trochophore larva.
30. Give an account of *Bonellia*.

(5x6= 30 Marks)

IV. Essay Questions (Answer any two questions)

31. Write notes on any five of the following.
    a) *Chiton*
    b) *Eupagurus*
    c) *Megascolex*
    d) *Antedon*
    e) *Phoronis*
    f) *Dentalium*
32. Enumerate the general characters and outline classification of phylum Arthropoda upto classes with suitable examples.
33. Descibe the structure of Ommatidium and mechanism of vision in *Pennaeus*.
34. Describe the nervous system of Pila with a diagram. Name any two sense organs in Pila.

(2x10= 20 Marks)

39 C

32M18116 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Zoology Degree Examination, March 2018

BZOL2C02 – Economic Zoology

(2017 Admission onwards)

ax. Time: 3 hours Max. Marks : 64

(Give illustrations and figures where ever necessary)

One word questions. (Each question carries 1 mark). Answer all questions.

. Name a paddy pest.

. Name an ornamental fish.

. The method of transfer of parasite from one host to other.

. The high grade collagen produced from the gall bladder of fishes.

. Pest which occur accidentally in isolated localities.

. The method of culture in marine environment.

. Parasite which completes its life cycle in two hosts.

. Give the scientific name of lac insect.

. Name a stored grain pest.

0 Scientific name of Indian pearl oyster. **(10 x 1 = 10marks)**

. Short answer question. (Answer any 7, Each question carries 2 marks).

. What is a reservoir host? Give an example.

. Differentiate infection and infestation.

. What is long line culture?

. What are fumigants?

. Describe the damage and control measures of *Spodoptera mauritia*..

. What are hyperparasites? Explain.

. What is autoinfection?

. Describe uses of fish byproducts.

. Write an account on damage caused by *Cosmopolites*.

. Describe the economic importance of lac. **(7 x 2 = 14 marks)**

III. Paragraph questions. (Answer any 4, each question carries 5 marks)

21. Write down the life cycle of *Wuchereria*.
22. What is sericulture? Explain.
23. What is IPM. Its merits and demerits.
24. Write an account on pisciculture.
25. Describe the damage and control measures of stored grain pests.
26. Write account on eyestalk ablation in shrimps. **(4x 5 = 20 ma**

IV. Essay questions. (Answer any 2, Each question carries 10 marks).

27. Describe the life cycle, pathogenicity and clinical symptoms of *Entamoeba histolyti*
28. Describe damage and control measures of coconut pests. Add a note on biological
29. Explain the social organization of honeybee and the importance of apiculture.
30. Describe briefly pearl culture methods. **(2 x10 = 20 marks**

39 D

2M18117 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester M.Sc Zoology Degree Examination, March 2018

MZOL2B04 – Molecular Biology

(2017 Admission onwards)

. Time: 3 hours Max. Weightage : 36

wer all *fourteen* questions (Weightage-1)

1. What are petite mutants
2. What is gRNA? Mention it's role
3. Write short notes on pseudogenes
4. Highlight the features of human mitochondrial genome
5. Write short notes on selfish DNA
6. Highlight the role of telomerase
7. What is complex multigene family? Give an example
8. Write notes on IS elements
9. Write notes on gene therapy
10. Enlist any four cellular changes during apoptosis
11. Name any two inhibitors of Eukaryotic translation. Mention their actions
12. What is wobble hypothesis
13. Write short notes on affinity labelling
14. What is Suppressor tRNA? Mention its function

(14 x 1 = 14 weightage)

ver any *seven* questions (Weightage-2).

15. Briefly explain excision repair.
16. Describe the process of Aminoacylation of tRNA.
17. Discuss the characteristic features and functions of topoisomerases
18. Write notes on P-elements in Drosophila
19. What are interrupted genes? Discuss their special features
20. Give an account of point mutations that alter genetic code
21. With suitable examples explain the features of oncogenes
22. Write notes on repetitive DNA
23. Describe the process of splicing in post transcriptional modification of eukaryotic mRNA
24. Briefly explain translational proof reading

(7 x 2 = 14 weightage)

II. Answer any *two* questions (Weightage-4).

25. Explain any three models of DNA replication
26. Explain various steps involved in prokaryotic transcription
27. Describe the basic features of a repressible operon with suitable example
28. Discuss various methods of gene transfer in Bacteria

(2 x 4 = 8 weightage)