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Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester B.Sc Degree Examination, November 2019

BZOO (PSY3)C03 – Human Physiology

(2018 Admission onwards)

Time: 3 hours

Max. Marks: 80

PART A

Answer all questions. Each question carries 1 mark.

Choose the correct answer from the following options given below

1. Pacinian corpuscles help to detect
a) Thermal sensation b) Position sensation c) Tactile sensation d) pain sensation
2. The scala vestibuli is separated from the scala media by themembrane.
a) Tympanic b) vestibular c) Tectorial d) Basilar
3. The glossopharyngeal nerve is associated with transmission of
a) Olfactory sensation b) Pain sensation c) Itch sensation d) Taste
4. A severe deficiency of this vitamin causes night blindness.
a) Vitamin C b) Vitamin D c) Vitamin A d) Vitamin E
5. Pain receptors in the skin and other tissues are
a) Free nerve endings b) Iggo dome receptor c) Ruffini's end-organs d) Merkel's discs
6. Failure of vasopressin secretion results in
a) Diabetes mellitus b) Diabetes insipidus c) Gynaecomastia d) Myxedema

Fill in the blanks

7. The action of parathormone is antagonistic to that of
8. The light sensitive photochemical is found in the segment of both rods and cones.
9. At its distal end the vestibular channel communicates with scala tympani through the
10. is the third ear ossicle, the base of which fits into the oval window.
11. The dominant taste of food containing L-glutamate is designating a pleasant taste.
12. The region just around the fovea is called

(12 x 1 = 12 marks)

PART B

Answer any seven questions. Each question carries 2 marks.

13. Mention the primary sensations of taste along with the locations on tongue where they are recognized.
14. Explain referred pain and its significance.
15. Write a note on the organ of Corti.
16. Write a note on blind spot.
17. Differentiate between adenohypophysis and neurohypophysis.
18. Write a note on tickle and itch sensations.
19. Explain the functional organization of adrenal cortex.
20. Write a note on thymus.
- 21.. What is hypermetropia? How can it be corrected?

(7 x 2 = 14 marks)

PART C

Answer any six questions. Each question carries 5 marks.

22. With the help of a suitable, labeled diagram explain the organization of the cochlea.
23. Detail the four major effects of thyroxin.
24. Write a note on thermal receptors and explain the pathway of transmission of thermal signals to the CNS.
25. Explain the physiology of vision.
26. Mention the primary sensations of smell and detail the organization of the olfactory epithelium.
27. Name the principal hormones secreted by the ovary and explain their functions.
28. Explain the Rhodopsin – Retinal visual cycle responsible for the excitation of the rods.
29. Explain the purpose of pain, types of pain and hyperalgesia.

(6 x 5 = 30 marks)

PART D

Answer any three questions. Each question carries 8 marks.

30. Trace the auditory pathway from cochlea to the primary auditory cortex.
31. Give the location and hormones released by the pituitary gland and highlight its relationship with the hypothalamus.
32. Write notes on the major six different types of tactile receptors.
33. Detail the pathway that transmits taste signals to the central nervous system.
34. With the help of a neat, labeled diagram explain the structure of human eye.

(3 x 8 = 24 marks)

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Third Semester B.Sc Zoology Degree Examination, November 2019
BZOL3B03 – Animal Diversity, Chordata Part - 1
(2018 Admission onwards)

Time: 3 hours

Max. Marks: 80

Part I

Answer ALL the following questions: Each question carries 1 Marks

1. What is the mucus secreting groove in the vestibule of Amphioxus ?
2. The test of Ascidia is mainly made up of a substance called.....
3. What is foramen of Manro?
4. What are the chambers of heart in Calotes?
5. What is *Latimeria*?
6. Distinguish between plastron and carapace?
7. Give the scientific name of Toad?
8. What are the functions of Jacobson’s organ?
9. What is the function of conus papillaris?
10. Give the characters of *Necturus*?

(10 x 1=10 marks)

Part B

Answer any TEN questions: Each question carries 2 Marks

11. Classify phylum Chordata.
12. What is *Protopterus*?
13. Give the structure of hyoid apparatus in Calotes.
14. Comment on the fin system of Mullet .
15. Give the characters of *Oikopleura* .
16. Give characters of *Hylonomous*.
17. What are Anurans?
18. Differentiate between Alligator and Crocodile?
19. What are stem reptiles?
20. Write notes on *Sphenodon*.
21. Give two examples of Chondrichthyes .
22. Comment on Ammocoetes larva?

(10 x 2=20 marks)

Part C:

Answer any FIVE questions. Each question carries 6 Marks

23. Describe the arterial system of Mullet.
24. Explain the feeding mechanism of *Amphioxus*.
25. Give the respiratory adaptations of Amphibia.
26. Comment on Poisonous and non poisonous snakes of Kerala ?
27. Explain urino- genital system in Reptilia ?
28. Classify Amphibia and give examples.
29. Explain retrogressive metamorphosis with an example?
30. Explain the vertebral column of Mullet with help of diagrams.

(5 x 6 =30 marks)

Part D

Answer any TWO questions. Each question carries 10 Marks

31. Explain the respiratory system and its mechanism in Mullet?
32. Explain the circulatory system in Frog?
33. Explain the nervous system and sense organs in Calotes?
34. Write notes on 1. *Sphenodon* 2. *Necturus* 3. *Mugil* 4. *Amblystoma* 5. *Chimaera*.

(2 x 10= 20 marks)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester B.Sc Botany Degree Examination, November 2019

BZOL3C03 – Physiology, Toxicology and Ethology

(2018 Admission onwards)

Time: 3 hours

Max. Marks: 64

(Give illustrations and figures where ever necessary)

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

1. Name the fish which exhibit parental care.
2. Name any one radioactive isotope.
3. Give an example of neurotransmitter.
4. The structural and functional unit of nervous system.
5. The inflammatory disorder of kidney.
6. The excretion of nitrogenous waste in the form of ammonia.
7. The precursor form of plasmin
8. Name the poisonous gas of tobacco smoke.
9. Where do you find Nodes of Ranvier?
10. Who proposed the sliding filament theory?

(10 x 1=10 marks)

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

11. Mention the physiological changes in fasting.
12. Comment on cyanide poisoning.
13. What is arteriosclerosis?
14. What are the osmoregulatory adaptations of camels?
15. What is rigor mortis?
16. Write short note on radiation hazards.
17. Mention the significance of courtship.
18. Comment on altruism.
19. What are the advantages of migration?
20. Comment on social life of lion.

(7x2=14 marks)

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

21. Give an account on active transport.
22. Mention the significance of dietary fibres
23. Write short note on carbon monoxide poisoning
24. Explain the formation of urea
25. Comment on automobile exhausts
26. Distinguish between aestivation and hibernation.

(4x5=20 marks)

IV. Essay questions {Answer any 2, Each question carries 10 marks}

27. Write an account on social organizations in mammals.
28. Illustrate the toxicological hazards of metals.
29. Explain the physiology of contraction of skeletal muscles.
30. Give an account on coagulation of blood

(2x10=20 marks)