FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Zoology(Open Course) Degree Examination, November 2019

BZOL5D01 – Reproductive Health & Sex Education

(2017 Admission onwards)

Time: 2 hours Max. Marks: 40

SECTION A

Answer *all* questions. Each carries one mark

1. PNDT Act
2. What is Barr body? mention its significance.
3. Merits of MRI scanning technique.
4. Name two STDs transmitted by bacteria.
5. What is ovum bank?
6. Gender discrimination in society.
7. What is LFT?
8. What is meant by designer baby?
9. What are Fraternal twins?
10. Preservation of gametes under low temperature is called----------.

(10x1=10 Marks)

SECTION B

Answer any *five* questions. Each question carries *two* marks.

11. Explain chromosomal mechanism of sex determination.
12. Briefly explain the different Imaging techniques.
13. Prenatal diagnosis- Ethical issues and laws
14. Write a short note on Ethical aspects of female foeticde.
15. Write short note on sexual perversions.
16. Chromosomal anomalies.
17. Symptoms and mode of transmission of AIDS

(5x2=10 marks)

SECTION C:

Answer any *two* questions. Each carries five marks

18. Briefly explain various Assisted Reproductive Technologies(ART)
19. Describe the different Scientific Birth control measures.
20. Explain the following a) Angioplasty b) Bypass surgery

(2x5=10 Marks)

SECTION D

Answer any *one* question. The question carries *ten* marks.

21. Discuss the various common diagnostic techniques
22. Write an essay on sexually transmitted infectious diseases.

(1x10=10 Marks)

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Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Zoology Degree Examination, November 2019

BZOL5B09 – General Methodology in Science, Biostatistics and Informatics

(2017 Admission onwards)

Time: 3 hours Max. Ma

I. Answer all questions. Each question carries one mark each

1. The computer communication network linking libraries is.....
2. Name the data obtained by direct observation
3. Define the term Mode
4. Define scientific attitude
5. What is empiricism?
6. What is DSL?
7. Who proposed Chi square test?
8. What is Unicode?
9. The device used to connect PC with server computer during browsing is.....
10. What is Plagiarism?

(10x1=10 Mark

II. Answer all ten questions. Each question carries two marks.

11. Why is Mathematics considered as Formal science?
12. What is virtual testing? Explain
13. Differentiate between absolute error and relative error
14. Name the various secondary sources of scientific information
15. What is artificial intelligence?
16. What is meant by standard error?
17. Describe Auxiliary hypothesis
18. What is cyber ethics?
19. Write a note on E-waste
20. What is NICNET?

(10x2=20 Mark

1B5N19329 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Zoology Degree Examination, November 2019

BZOL5B08 – Cell Biology & Genetics

(2017 Admission onwards)

Time: 3 hours Max. Marks: 8

I. Answer *all* questions. Each carries 1 mark:

1. Apoptosis is.....
2. All the genes in a single chromosome that are inherited together are called.....
3. Acrosome of sperm is formed from.....
4. Analysis of a trait in several generations in a human family is.....
5. A single gene influences more than one phenotypic trait is.....
6. Barr body is an inactivated.....
7. Cell organelle rich in acid hydrolases is.....
8. Reappearance of an ancestral character in an individual is called.....
9. The phenotypic ratio in incomplete dominance is.....
10. The basic structural unit of chromatin is known as.....

(10x1=10 Marks)

II. Answer *all* questions. Each carries 2 marks:

11. Distinguish between euchromatin and heterochromatin.
12. Comment on Active transport.
13. What is Epistasis. Give an example.
14. Differentiate prokaryotic and eukaryotic ribosome.
15. Write the names of two vital stains.
16. What are lethal genes?
17. Explain Lyon hypothesis.
18. Comment on microvilli.
19. Write a note on the significance of meiosis.
20. What is Fo-F1 particle.

(10x2=20 Marks)

III. **Answer *any five* questions. Each carries 6 marks:**

21. Describe the fluid mosaic model of plasma membrane.
22. Explain erythroblastosis foetalis
23. Comment on polymorphism in lysosome.
24. Compare the principle and uses of light microscope and electron microscope.
25. Explain the inheritance pattern of sickle cell anaemia..
26. Give an account on gene mutations.
27. Describe the sex determination in Bonellia.
28. Illustrate sex-linked inheritance with a suitable example.

(5x6=30 Marks)

IV. **Answer *any two* essay questions. Each carries 10 marks:**

29. Explain the interaction of genes with examples.
30. Describe the structure and functions of mitochondria.
31. Give an account on Chromosomal mechanisms of sex determination.
32. What is Giant chromosome? Explain the structure and significance of polytene chromosome.

(2x10=20 Marks)

Fifth Semester B.Sc Zoology Degree Examination, November 2019

BZOL5B07 – Ethology, Evolution and Zoogeography

(2017 Admission onwards)

Time: 3 hours Max. Marks: 80

I. Answer all the questions each question carries 1 mark

1. Name the book in which Lamark mentioned about 'use and disuse'
2. What is communication
3. Who conducted classical conditioning experiments
4. Give two examples of atavism
5. What is the cranial capacity of modern man
6. Who proposed biogenetic law
7. Name a human pheromone
8. What is the approximate age of earth
9. India comes under which zoogeographical region
10. Name the theory proposed by Gould and Eldredge

(10 x1=10 Marks)

II. Answer all ten questions. Each question carries 2 mark

11. Differentiate between taxis and kinesis
12. Define pheromone with example
13. Comment on modern synthetic theory of evolution
14. Briefly explain pre adaptation
15. Allopatric speciation
16. Comment on trans Himalayan zone
17. What is bipolar distribution give an example
18. Write notes on circadian rhythm
19. What are vestigial organ give two examples
20. Define cline and deme

(10 x2= 20 Marks)

III. Answer any five questions. Each question carries 6 mark

21. Give an account of Hardy Weinberg principle
22. Briefly explain geological time scale mention on Cambrian explosion
23. Explain learnt behaviour
24. Describe social organization of termites
25. Explain adaptive radiation with examples
26. Explain Urey miller experiment
27. Describe morphological and anatomical evidences of evolution
28. Explain Punctuated equilibrium and its relevance

(5 x6= 30 Marks)

IV. Answer any two questions. Each question carries 10 mark

29. Explain various types of speciation
30. Write an essay on evolution of man
31. Explain theories of evolution
32. Describe different types of isolation mechanisms

(2x10= 20 Marks)

1B5N19327 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Zoology Degree Examination, November 2019

BZOL5B06 – Environmental Biology, Wildlife Conservation & Toxicology

(2017 Admission onwards)

Time: 3 hours Max. Marks: 80

I. Answer *all* questions. Each carries 1 mark:

1. Define the Law of 10%.
2. Expand CITES.
3. What is Minimata?
4. Define carrying capacity.
5. Name the 'hotspots' in the Indian region.
6. Who coined the term' Ecology'?
7. Give an example for exotic species.
8. What is LC 50?
9. What is ecotone?
10. What are xenobiotics?

(10x1=10 Marks)

II. Answer *all* questions. Each carries 2 marks:

11. Distinguish between autecology and synecology.
12. Comment on Kyoto Agreement.
13. What is Shannon diversity index?
14. Differentiate home range from territory.
15. Write briefly on wildlife protection act.
16. What are the ecological impacts of sand mining?
17. Explain the concept of sustainable development.
18. Comment on limiting factors.
19. Write a note on biosphere reserves.
20. Briefly explain sedimentary cycle.

(10x2=20 Marks)

III. **Answer *any five* questions. Each carries 6 marks:**

21. State and explain Shelford's law of tolerance.
22. Explain various threats to biodiversity.
23. Comment on population growth curves.
24. Write briefly on different sampling methods of animal populations.
25. Explain UNEP and its strategies.
26. Give an account on health hazards of toxicants.
27. Explain carbon cycle.
28. Elaborate the various aspects of ecological succession.

(5x6=30 Marks)

IV. **Answer *any two* essay questions. Each carries 10 marks:**

29. Explain the various types of population interactions.
30. Write an essay on ecological energetics.
31. Describe the consequences of habitat destruction.
32. Give an account on the various conservation projects undertaken in India.

(2x10=20 Marks)