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Reg. No:.....

Name: .....

**FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE**  
**First Semester BA Degree Examination, November 2024**  
**PEN1FM105 - Lifestyle Disease and Physical Activity**

(FYUGP 2024 Admission)

Time: 1.5 hours

Max. Marks : 50

**Course Outcome Mapping Scheme**

1	2	3	4	5	6	7	8	9	10
CO1	CO2	CO4	CO4	CO1	CO1	CO1	CO1	CO1	CO4
11	12	13	14	15	16	17			
CO3	CO2	CO3	CO1	CO3	CO1	CO3			

**PART – A**

**All questions can be attended.**  
**Each question carries Two mark.**  
**Ceiling -16 Marks**

1. What is physical fitness?
2. Write a short note on PCOS.
3. What is flexibility, and what are the different types of flexibility?
4. What is BMI, and what is the formula to calculate BMI?
5. What is Osteoporosis?
6. What is BMR?
7. What is cardiorespiratory fitness?
8. What is a vital sign?
9. What is coronary heart disease?
10. What is meant by fitness balance?

**PART – B**

**All questions can be attended.**  
**Each question carries six marks.**  
**Ceiling -24 Marks**

11. Explain obesity, including its symptoms, causes, and management.
12. What is nutritional balance and explain different types of nutrients.
13. Explain the importance of exercise in the modern lifestyle.
14. Explain stress, including its causes and management.
15. What is exercise, and what are the principles of exercise?

**PART - C**

**Answer any *one* questions.  
Each question carries Ten marks.**

16. Explain hypertension and diabetes, with their causes, symptoms, and management.
17. Discuss speed, strength, and endurance, along with their types and methods for assessment.

**1 x 10 = 10 Marks**

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester B.Sc Degree Examination, November 2024

ZOO1CJ101 – An Overview of Human Physiology : Life Sustaining systems

(FYUGP 2024 Admission)

Time: 2 hours

Max. Marks : 70

Course Outcome Mapping Scheme

1	2	3	4	5	6	7	8	9	10
CO1	CO2	CO6	CO1	CO6	CO2	CO2	CO3	CO2	CO4
11	12	13	14	15	16	17	18	19	20
CO2	CO2	CO6	CO1	CO4	CO2	CO6	CO3	CO1	CO4

**PART – A**

**All questions can be attended.  
Each question carries Three marks.  
Ceiling -24 Marks**

1. Define BMI. Write its significance
2. Give an outline of ECG.
3. Write short notes on any three cardio- vascular problems.
4. Draw a flow chart showing biochemical pathway of blood coagulation.
5. Write a note on effects of sports on your physical health.
6. Identify different non – myelinated nerve fibres.
7. Write a note on structure of striated muscle.
8. List out any three renal disorders and their significance.
9. Write a short note on nutrition in pregnancy.
10. Describe obesity. Write a note as its remedial measures.



**PART – B**  
**All questions can be attended.**  
**Each question carries six marks.**  
**Ceiling -36 Marks**

11. Discuss different levels of physiological regulation.
12. Explain different types of leucocytes in human blood.
13. Briefly describe the factors influencing oxygen dissociation curve.
14. Describe different types of synapses
15. Classify neurotransmitters and their functions.
16. Explain the steps involved in ornithine cycle.
17. Discuss JGA and its significances.
18. Write a note on hormonal control of digestion.

**PART - C**  
**Answer any *one* questions.**  
**Each question carries Ten marks.**

19. Explain the mechanisms of transport of CO<sub>2</sub> from tissues to lungs.
20. Explain the physiology and biochemistry of muscle contraction.

**1 x 10 = 10 Marks**

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Reg. No:.....

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester Degree Examination, November 2024

ZOO1MN102- Basics in cellular Physiology

(FYUGP 2024 Admission)

Time: 2 hours

Max. Marks : 70

Course Outcome Mapping Scheme

1	2	3	4	5	6	7	8	9	10
CO1	CO2	CO6	CO1	CO6	CO2	CO2	CO3	CO2	CO4
11	12	13	14	15	16	17	18	19	20
CO2	CO2	CO6	CO1	CO4	CO2	CO6	CO3	CO1	CO4

**PART – A**

**All questions can be attended.**  
**Each question carries Three mark.**

**Ceiling -24 Marks**

1. Differentiate between unicellular and multicellular organisms, providing examples.
2. Define a karyotype and explain its significance in genetics.
3. Explain the difference between genotype and phenotype, providing examples.
4. Define the cell theory and explain its significance in biology.
5. Explain the results of Mendel's monohybrid cross and how it demonstrates the Law of Segregation.
6. Describe the role of Okazaki fragments in the replication of the lagging strand.
7. Identify the key phases of the cell cycle and briefly state what occurs in each phase.
8. List the key characteristics of Down's syndrome and describe the chromosomal anomaly involved.
9. Explain the difference between introns and exons in gene structure
10. Define point mutation and provide an example of how it can lead to a genetic disorder.

**PART – B**

**All questions can be attended.  
Each question carries six marks.**

**Ceiling -36 Marks**

11. Discuss the semiconservative method of DNA replication
12. List the main types of chromosomes found in organisms and briefly describe each.
13. Describe the concept of multiple alleles and provide an example that illustrates this form of inheritance.
14. Discuss the fluid mosaic model of the plasma membrane, including its structure, composition, and significance in cellular function.
15. Identify the differences between Klinefelter's syndrome and Turner's syndrome in terms of chromosomal makeup and symptoms.
16. Explain the process of mitosis, detailing each stage and the significance of mitotic division in growth and repair
17. Define incomplete dominance and provide an example of how it differs from complete dominance.
18. Describe the symptoms and genetic cause of alkaptonuria and explain how it is inherited.

**PART - C**

**Answer any *one* questions.  
Each question carries Ten marks.**

19. Write an essay on different types of mutations with suitable examples.
20. Discuss the structure and functions of any five cellular organelles in a eukaryotic cell

**1 x 10 = 10 Marks**



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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester B.Sc Degree Examination, November 2024

**ZOOFM105(2) – Reproductive Health and Sex Education**

(FYUGP 2024 Admission )

Time: 1.5 hours

Max. Marks : 50

**Course Outcome Mapping Scheme**

1	2	3	4	5	6	7	8	9	10
CO4	CO1	CO2	CO1	CO2	CO1	CO1	CO1	CO2	CO4
11	12	13	14	15	16	17			
CO4	CO2	CO1	CO3	CO3	CO4	CO4			

**PART – A**

**All questions can be attended.  
Each question carries Two mark.  
Ceiling -16 Marks**

1. Explain the importance of sex education for teenagers and young adults
2. Define Reproductive Health and mention its significance
3. What is a Barr body, and why is it significant in sex determination?
4. What is the POCSO Act, and why was it enacted?
5. Describe the primary function of the testis in the male reproductive system.
6. What is gender discrimination, and why is it important to address it in society
7. Differentiate between Turner's syndrome and Klinefelter's syndrome.
8. Explain the concept of sexual consent.
9. Define spermatogenesis and mention one hormone involved in the process.
10. What is Amniocentesis

**PART – B**

**All questions can be attended.  
Each question carries six marks.  
Ceiling -24 Marks**

11. Briefly describe the role of counseling in fostering healthy relationships.
12. Explain the structure of human ovary.
13. Explain Sexual Paraphilia
14. Outline the process and purpose of Assisted Reproductive Technologies.
15. Outline the different types of Contraceptive Methods.

**PART - C**

**Answer any *one* questions.**

**Each question carries Ten marks.**

16. Explain the menstrual cycle and mention the role of hormones in regulating it.
17. Discuss the symptoms, mode of transmission, diagnosis of Sexually Transmitted Diseases.

**1 x 10 = 10 Marks**



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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester B.Sc Degree Examination, November 2024

ZOOMN101 - Foundations of Environmental Biology and Animal Behaviour

(FYUGP 2024 Admission )

Time: 2 hours

Max. Marks : 70

Course Outcome Mapping Scheme

1	2	3	4	5	6	7	8	9	10
CO1	CO2	CO6	CO1	CO6	CO2	CO2	CO3	CO2	CO4
11	12	13	14	15	16	17	18	19	20
CO2	CO2	CO6	CO1	CO4	CO2	CO6	CO3	CO1	CO4

**PART – A**

**All questions can be attended.**  
**Each question carries Three mark.**  
**Ceiling -24 arks**

1. Define Biome.
2. What is ethology? Mention any one of its scopes.
3. Differentiate Autecology and Synecology
4. Comment on National Environmental Policy
5. Enlist any four proximate factors in sociobiology.
6. Mention any two characteristics of biotic community
7. Provide examples for a decomposer and a detritivore.
8. Describe FAPs and releaser stimuli.
9. Write any two adaptations of animals on rocky seashore.
10. Compare GPP and NPP.

**PART – B**

**All questions can be attended.**  
**Each question carries six marks.**  
**Ceiling -36 Marks**

11. Compare Imprinting and Habituation.
12. Write down various types of interactions in a biotic community briefly.
13. Discuss Plastic waste Management Rules, 2016 in detail.

14. Describe the biotic divisions and their characteristics of marine ecosystem.
15. Outline social organization in termites.
16. Discuss the concept of sedimentary cycle with the help of a diagram.
17. What are the characteristics of Deciduous Forest biome?
18. Examine the concept of 'r' and 'k' species.

**PART - C**

**Answer any *one* question.**

**Each question carries Ten marks.**

19. Write an essay on the energy flow in an ecosystem. Explain how energy flow in the ecosystem obeys the law of thermodynamics.
20. Describe types of communication in animals with suitable examples.

**1 x 10 = 10 Marks**