

2M3N21349

(Pages : 1)

Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Third Semester M.Sc Degree Examination, November 2021
MZL3C08 – Microbiology & Biotechnology
(2019 Admission onwards)

Time: 3 hours

Max. weightage : 30

I. Answer any eight of the following: - (Weightage –1)

1. What are disinfectants?
2. Comment on candidiasis.
3. Discuss on biogas plant.
4. Differentiate between spread plate and pour plate techniques.
5. What do you mean by pure culture?
6. Write notes on bacterial motility.
7. What is chimeric DNA?
8. Explain chromosome walking.
9. What is gene therapy?
10. Comment on DNA finger printing.
11. Distinguish between YAC and MAC.
12. What are the properties of a good cloning vector?

(8 x 1= 8 weightage)

II. Answer any four of the following: - (Weightage – 3)

13. What are antibiotics? Give an account of different types of antibiotics.
14. Write an account of utilization of energy in transport of nutrients in microbes.
15. Explain the methods used for enumeration of microbial cell numbers.
16. Write on molecular probes and their applications.
17. Explain any four transfection methods.
18. Describe the role of transgenic animals for human welfare.
19. Explain genomic libraries.

(4 x 3 = 12 weightage)

III. Answer any two of the following: - (Weightage – 5)

20. Explain the structure of bacterial cell wall and synthesis of peptidoglycan.
21. Write an essay on human diseases caused by bacteria.
22. Give a detailed account on PCR technology, its procedure, types and applications.
23. Explain the different steps involved in *In vivo* cloning.

(2 x 5 = 10 weightage)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester M.Sc Degree Examination, November 2021

MZL3C07 – Physiology

(2019 Admission onwards)

Time: 3 hours

Max. weightage : 30

I. Answer any eight of the following: (Weightage –1)

1. Define the concept of comfort zone.
2. Outline the functions of lymphatic system.
3. What is the principle of ECG?
4. What are Merkel receptors and Meissner corpuscles?
5. Exemplify polysynaptic reflex.
6. Why the Wernicke's area is called 'the knowing area'?
7. What are the effects of Carbon dioxide and fetal hemoglobin on Oxygen dissociation curve?
8. What is IRV?
9. What are the excretory organs in arthropods?
10. What is deglutition reflex?
11. What are the different levels of functions of the cerebellum in the over all motor control?
12. What do you mean by consolidation of memory?

(8 x 1= 8 weightage)

II. Answer any four of the following: (Weightage – 3)

13. How Vitamin B₁₂ is digested and absorbed?
14. Define obesity and discuss its causes and consequences.
15. Explain the mechanism of renal regulation of acid-base balance.
16. What is dead space? What is its significance in Covid-19 patients?
17. Explain the mechanisms of oxygen transport in Man. Add a note on the effect of anemia on oxygen transport.
18. With the help of a diagram discuss how taste buds assist in gustation.
19. Define memory and classify memory into various types.

(4 x3 = 12 weightage)

II. Answer any two of the following: (Weightage – 5)

0. Discuss the electrophysiology of vision. Add a note on the structure of rods.
1. Discuss various types of brain disorders in man.
2. Explain how urine is formed. Add a note on abnormal constituents of urine.
3. Describe physiological anatomy of coronary blood flow and its control. Add a note on ischemic diseases.

(2 x 5 = 10 weightage)

2M3N21350

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Reg. No:.....

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester M.Sc Degree Examination, November 2021

MZL3E01(5) – Wildlife Biology I –Biodiversity & Biota

(2019 Admission onwards)

Time: 3 hours

Max. weightage : 30

I. Answer *eight of the following* questions.(Weightage-1)

1. Musk deer
2. Marsh crocodile
3. Indian Giant squirrel
4. Paradise flycatcher
5. Pigmy sperm whale
6. Gangetic dolphin
7. Cooperative breeding
8. Flyways
9. Endemic bird areas
10. Endemic fishes of Western ghats
11. Hot spots of biodiversity
12. Ecological role of Owl

(8x1=8 weightage)

II. Answer *any four of the following* questions. (Weightage-3)

13. Comment on the breeding habit of Indian Cuckoo.
14. Write notes on Amphibians endemic to Western ghats.
15. Briefly explain the major threats to the survival of Indian monitor lizard.
16. Describe the vocalization and its role in birds.
17. Explain Satpura hypothesis
18. Explain birds as scavengers.
19. Comment on different types of calls in birds

(4x3=12 weightage)

III. Answer any two of the following questions. (Weightage-5)

20. Write an essay on the sociobiology of Lion.
21. Elaborate the feeding and breeding habit of marine turtles.
22. Brief account on the endangered and endemic snakes of Western ghats.
23. Comment on ecological role and distribution of:
 - a) Nilgiri tahr
 - b) Lion tailed macaque
 - c) Vulture
 - d) Crow pheasant

(2x5=10 weightage)