

For Candidates Admitted From 2018

2018 MZO 22C

ROLL NO.....

M.Sc. DEGREE EXAMINATIONS, APRIL 2019

ZOOLOGY SEMESTER – II
BIOCHEMISTRY

Time: 3 Hrs

Max. Marks: 75

PART - A (10 X 2 = 20)

ANSWER ALL THE QUESTIONS

1. Alkalinity
2. Atomic weight
3. Heteropolysaccharide
4. Glucokinase
5. Ornithine cycle
6. Essential amino acid
7. Steroid
8. Compound lipid
9. Apoenzyme
10. Antioxidant

PART - B (5 X 5 = 25)

ANSWER ALL THE QUESTIONS

11. a) Describe the structure of water molecule.
(or)
b) Explain different types of chemical bonds found in the biomolecules.
12. a) Explain the structure of starch.
(or)
b) Write an account on electron transport system.
13. a) Classify amino acids based on polarity of the side chain.
(or)
b) Write short note on (i) deamination and (ii) transamination.
14. a) Give an account on saturated fatty acid.
(or)
b) Write about the biosynthesis of cholesterol.

15. a) Write down the properties of enzyme.

(or)

b) Write about enzyme inhibition.

PART - C (3 X 10 = 30)

ANSWER ANY THREE QUESTIONS

16. Make an elaborate note on buffer.
17. Give a detail note on the HMP shut pathway.
18. Explain in detail about the inborn errors of metabolism.
19. Explain the process of biosynthesis and degradation of purines.
20. Explain the different factors influencing the enzyme activity.

For Candidates Admitted From 2018

2018 MZO 24E

ROLL NO.....

M.Sc. DEGREE EXAMINATIONS, APRIL 2019

ZOOLOGY SEMESTER – II

ELECTIVE : BIostatistics, BIOTECHNIQUES AND RESEARCH METHODOLOGY

Time: 3 Hrs

Max. Marks: 75

PART - A (10 X 2 = 20)
ANSWER ALL QUESTIONS

1. Arithmetic mean
2. Standard error
3. Degree of freedom
4. Positive correlation
5. DNA Probe
6. Nitrocellulose membrane
7. Laser
8. Flame photometry
9. Journal
10. Research

PART - B (5 X 5 = 25)
ANSWER ALL QUESTIONS

11. a) Explain the methods of collection of primary data.
(or)
b) Write short note on (i) Median and (ii) Mode
12. a) Explain the significance of DMRT.
(or)
b) In 100 tosses of a coin 55 heads and 45 tails were observed. Test the hypothesis that the coin is fair at 0.05 and 0.01 level of significances.
13. a) Explain the principle and procedure of Fluorescent Insitu Hybridisation.
(or)
b) Write the procedure of SDS-PAGE.

14. a) Write an account on Scanning Electron Microscope.
(or)
b) List down the applications of GC-MS in biological research.
15. a) Explain the objectives of Research.
(or)
b) Explain how literature is reviewed for a research problem.

PART - C (3 X 10 = 30)
ANSWER ANY THREE QUESTIONS

16. Explain different methods of graphical representation of data.
17. A certain manure was used on four plots of land, A, B, C and D. Four beds were prepared in each plot and the manure used. The output of the crop in the beds of plots A, B, C and D is given below:

A	B	C	D
8	9	15	6
12	3	10	8
1	7	4	10
3	1	7	8

Find out whether the difference in the means of the production of crops of the plots is significant or not.

18. Explain the principle, procedure and applications of Western Blotting technique.
19. Write an essay on biosensor.
20. Explain how a manuscript is prepared for publication in a journal.

For Candidates Admitted From 2015-2017

15 MZO 42C

REG.NO.....

M.Sc. DEGREE EXAMINATIONS, APRIL 2019

ZOOLOGY SEMESTER :IV

ENDOCRINOLOGY-II

Time : 3 HRS.

Max.Marks: 75

PART -A (10 X 2 =20)

ANSWER ALL THE QUESTIONS

1. cAMP
2. Pars distalis
3. Tri-iodothyronine
4. Calcitonin
5. Primary Hyperparathyroidism
6. Epinephrine
7. Grelin
8. Prolactin
9. Corticosteroids
10. Estradiol

PART -B (5 X 5 =25)

ANSWER ALL THE QUESTIONS

11. a. Comment the role of Ca^{++} mediated hormones as a secondary messengers?
(or)
b. List the disorders due to hypo and hyper secretion pituitary hormones.
12. a. Write the biological functions of thyroid hormones
(or)
b. How do hormones function in the regulation of Calcium and Phosphate?
13. a. Note the disorders due to hyper secretion of adrenal cortical hormones.

(or)

- b. Detail the adreno- cortical and medullary hormone interaction.
14. a. Elucidate the biological functions of glucagon.

(or)

- b. What are prostaglandins? Give their biological functions.
15. a. Mention the disorders due to hypo and hyper secretion of testosterone.

(or)

- b. What are placental hormones? Write about their significance.

PART -C (3 X 10 =30)

ANSWER ANY THREE QUESTIONS

16. Expound the structure and physiological functions of hormones of anterior pituitary.
17. Elaborate neuro-endocrine reflex and feedback regulation.
18. Enumerate the synthesis and chemistry of adrenal medullary hormones.
19. Write the sources and biological functions of gastro- intestinal hormones.
20. Discuss on the biological functions and disorders of estrogen and progesterone.

M. Sc Degree Examination **APRIL 2019**
Semester – IV Zoology
Microbiology

Time : 3 hrs

Part – A (10x2=20)
Answer All Questions

Max. Marks : 70

1. Monera
2. Botulism
3. Conidiospores
4. Turbidostat.
5. Syntrophism
6. Potable water.
7. Putrefaction.
8. Methylene blue reduction test.
9. Antibiotics
10. Silage

Part – B (5x5=25)
Answer All Questions

11. (a) *Write* the scope of microbiology
(Or)
(b) Describe the structure of bacteriophages
12. (a) *Explain* the economic importance of bacteria
(Or)
(b) Describe the growth rate of bacteria
13. (a) Elucidate nitrogen fixation
(Or)
(b) Enlist the source of aquatic pollution
14. (a) Write a brief account on food poisoning.
(Or)
(b) Comment on the preservation of milk
15. (a) Explain briefly about vaccines
(Or)
(b) Write a brief account on mycorrhizia

Part – C (3x10=30)
Answer Any Three Questions

16. Describe in detail about the Whittakers five kingdom concept
17. Write an essay on techniques involved in control of microbes.
18. Elucidate the microorganisms involve in phosphorus and iron cycle
19. Give a detailed account on the epidemiology of tuberculosis
20. Write an essay on biopesticides