KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH, BELAGAVI.
(Declared as Deemed-to-be-University u/s 3 & 12B of the UGC Act, 1956)
Accredited A+ Grade by NAAC (3rd Cycle) **Placed in 'A' Category by MoE (GoI)**

SECOND SEMESTER - M.Sc. NUTRITION AND DIETETICS DEGREE EXAMINATION – JANUARY 2025

Time: 3 Hours Max. Marks: 80

NUTRITIONAL BIOCHEMISTRY

Q.P. Code: 1955

Answers should be specific to the Questions asked.
Draw neat & labeled diagrams wherever necessary.
All the questions are compulsory.

Question Number **Marks**

LONG ESSAY QUESTIONS: **2 X 15 = 30**

1. Enumerate the various sources of acetyl co A. Discuss in detail the citric acid cycle. Add a note on amphibolic and anaplerotic reactions of citric acid cycle. (2+7+6)

2. List the dietary antioxidants. Describe the mechanisms how they protect against free radical damage. (3+12)

SHORT ESSAY QUESTIONS: **5 X 10 = 50**

3. Describe the sources, requirements, biochemical functions and deficiency manifestations of vitamin C. (2+2+3+3)

4. Explain the general structure of a lipoprotein and classify them. Explain their function and biological significance. (3+7)

5. Define co-enzyme. Classify and give use of each of the co-enzymes mentioning the reaction. (2+8)

6. Outline the steps in catabolism of tryptophan. List its derivatives. (7+3)

7. Mention the sources and requirement of Zinc. List four zinc containing enzymes and deficiency manifestations and toxicity of zinc. (2+4+4)

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FOURTH SEMESTER - M.Sc. MEDICAL MICROBIOLOGY DEGREE EXAMINATION – JANUARY 2025

Time: 3 Hours Max. Marks: 100

PAPER I: MICROBIOLOGY

Q.P. Code: 1421

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All the questions are compulsory.

Question Number **Marks**

LONG ESSAY QUESTIONS: **2 X 20 = 40**

1. Discuss the laboratory diagnosis of a case of diphtheria. Describe the different staining principles for Corynebacterium diphtheriae. Describe the role of vaccination. (10+5+5)

2. Classify mycobacteria. Discuss in detail the laboratory diagnosis of pulmonary tuberculosis as per National Tuberculosis Elimination Programme (NTEP). Describe the mechanism of drug resistance in Mycobacterium tuberculosis. (5+10+5)

SHORT ESSAY QUESTIONS: **6 X 10 = 60**

3. Discuss the mechanism of antibiotic resistance in Staphylococcus aureus.
4. Describe the laboratory diagnosis of anthrax.
5. Discuss the antigenic structure of Streptococcus pyogenes.
6. Discuss the virulence markers of Clostridium perfringes.
7. Discuss the infections caused by non-tuberculosis mycobacteria.
8. Discuss the antigenic structure of Neisseria gonorrhea.

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SIXTH SEMESTER - M. Sc. MEDICAL MICROBIOLOGY DEGREE EXAMINATION – JANUARY 2025

Time: 3 Hours Max. Marks: 100

PAPER I: MICROBIOLOGY (Protozoology)

Q.P. Code: 1437

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All the questions are compulsory.

Question Number **Marks**

LONG ESSAY QUESTIONS: **2 X 20 = 40**

1. Name the parasites transmitted by vectors. Describe the life cycle, pathogenesis & laboratory diagnosis of any **one** of these commonly seen in India. (5+5+5+5)
2. Enumerate the agents causing primary amoebic meningo-encephalitis. Discuss the pathogenesis & laboratory diagnosis of acanthamoeba keratitis. (4+8+8)

SHORT ESSAY QUESTIONS: **6 X 10 = 60**

3. Write the life cycle and laboratory diagnosis of falciparum malaria.
4. Write the pathogenesis and laboratory diagnosis of Giardia lamblia.
5. Write in detail about the principle & uses of fluorescent microscope in parasitic laboratory.
6. Name the different culture techniques & methods used to grow the protozoan parasites.
7. Write in detail about the life cycle and laboratory diagnosis of Trypanosoma bruceii.
8. Write in detail about the methods of food testing for commercial foods.

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M.SC. IN MEDICAL – II SEMESTER
JANUARY 2025

Time: 3 Hours Max. Marks: 80

ANATOMY

Q.P. Code: 1404

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.

Question Number **Marks**

LONG ESSAY QUESTIONS: **2 X 10 = 20**

1. Describe the right kidney under the following headings: a) External features b) Coverings c) Relations d) Applied anatomy (4+2+2+2)
2. Describe the heart under following headings: a) External features b) Coronary circulation c) Applied Anatomy (4+4+2)

SHORT ESSAY QUESTIONS: **9 X 5= 45**

3. Describe the bronchopulmonary segments of right lung.
4. Explain the microscopic structure of lymph node.
5. Describe the sulci and gyri of supero-lateral surface of cerebrum.
6. Describe the parts of fallopian tube and its applied anatomy.
7. Describe the blood supply of thyroid gland.
8. Describe the muscles of larynx in brief.
9. Enumerate the differences between jejunum and ileum.
10. Write a note on supports of the uterus.
11. Describe the prostatic part of male urethra.

SHORT ANSWER QUESTIONS: **5 X 3 = 15**

12. Name the types of pleura.
13. Name the structures at the hilum of left lung.
14. Enumerate the constrictions of oesophagus.
15. Name the structures forming stomach bed.
16. Draw diagram of microscopic structure of suprarenal gland.

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