Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Mar 2013

Time: Three Hours **Max. Marks: 80 Marks**

BIOCHEMISTRY – II (RS - 2)

Q.P. CODE: 1231

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Describe the biological functions, daily requirements, sources and deficiency manifestations of Vitamin D.
2. Give the denovo synthesis of fatty acids. Outline the factors that regulate its synthesis.
3. Briefly outline the metabolic fate of pyruvate. Give the functions & reactions of the Tri carboxylic acid cycle.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Principle of Photometry
5. Physiological importance of cholesterol.
6. Diabetes mellitns
7. Competitive inhibition of enzymes
8. Normal constituents of urine.
9. Urea cycle & disorders.
10. Galactosemia
11. Wald"s visual cycle.

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Von-Gierke's disease.
13. Rothera's test.
14. Synthesis of Cratinine
15 Rickets.
16. Estimation of Lithium by ISE.
17. Biological reference intervals of servum electrolytes.
18. Atherosclerosis
19. RDA of vitamin B12, Vitamin A, Vitamin C.
20. Marasmus.
21. Osmolarity.
22. Nitrogen balance.
23. Antioxidant role of two vitamins.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Mar 2013

Time: Three Hours **Max. Marks: 80 Marks**

MICROBIOLOGY – II (RS-2)

Q.P. CODE: 1232

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Classify fungi based on morphology. Give a detailed account of the dimorphic fungi pathogenic to humans
2. Classify cestodes. Describe the morphology, life cycle, clinical manifestations and laboratory diagnosis of Echinococcus granulosus
3. Describe the morphology, pathogenesis, laboratory diagnosis and immunoprophylaxis of rabies virus.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Laboratory diagnosis of dermatophyte infection
5. Clinical manifestations and laboratory diagnosis of Pneumocystis carinii.
6. Thick and think smear examination for malaria
7. Laboratory diagnosis of bilharziasis
8. Life cycle of Ascaris lumbricoides
9. Immunoprophylaxis of viral diseases
10. Antigenic variations in influenza viruses
11. Laboratory diagnosis of Hepatitis B viral infection

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. KoH mount for diagnosis of fungal infections
13. What is ID reaction? Name two fungai causing this reaction
14. Exoerythrocytic schizogony
15. Scolex of Taenia solium
16. Fasciolopsis buski
17. Write three differentiating features of Ancylostoma duodenale and Necator americanus
18. Loa loa
19. Infectious mononucleosis
20. Neuraminidase
21. Laboratory diagnosis of Dengue fever
22. Hepatitis C virus
23. Name any three viruses causing diarrohea

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II Year B.Sc. (M.L.T) Degree Examination – Mar 2013

Time: Three Hours **Max. Marks: 80 Marks**

PATHOLOGY – II (RS - 2)

Q.P. CODE: 1233

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Name the different microtomes. Describe in detail ultra microtome.
2. Describe various anticoagulants used in hematology and advantages and disadvantages of each.
3. Explain in detail about the test for Vitamin B12 deficiency.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Cytochemistry of leukocytes
5. Estimation of serum iron
6. Investigation of G6PD deficiency
7. Haematocrit
8. Automated Tissue Processor
9. Dark ground illumination microscope.
10. Test for Auto-immune hemolytic anemia
11. Test for megaloblastic anemia.

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Bleeding Time
13. Types of bone marrow smears
14. Platelet count
15 Methods of Hb estimation
16. EDTA
17. Structure of Reticulocyte
18. MCV & MCH
19. Microphotography
20. Functions of RBC & Platelets
21. Write diagram of LE cell.
22. Special stain for connective tissue
23. Write normal values of Hb, PCV, ESR and total WBC count.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Mar 2013

Time: Three Hours **Max. Marks: 80 Marks**

PATHOLOGY – II (Revised Scheme)

Q.P. CODE: 1606

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Discuss the procedure for obtaining Frozen section. Mention the indications for frozen section technique
2. Discuss bone marrow examination
3. Enumerate the various laboratory investigations in the diagnosis of haemolytic anaemias. Discuss osmotic fragility test

SHORT ESSAYS (Answer any Eight) **8 x 5 = 40 Marks**

4. Write a note on collection of blood
5. Histokinette
6. Write a note on total leukocyte count
7. Procedure of PAS staining
8. Romanowsky stains
9. Rapid paraffin processing of tissues
10. Demonstration of sickle cell phenomenon
11. Haemotoxylin stain
12. Clot retraction test
13. Cell block preparation

SHORT ANSWERS **10 x 2 = 20 Marks**

14. Name four decalcifying fluids
15 Precautions to avoid haemolysis
16. List out four clearing agents
17. Disadvantages of sahlis method of estimating haemoglobin
18. Types of microtome knives
19. Wintrobe's tube
20. Serial sections
21. Mention four poikilocytes
22. Fixative for E.M studies
23. Megaloblast

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Mar 2013

Time: Three Hours **Max. Marks: 80 Marks**

MICROBIOLOGY – II (Revised Scheme)

Q.P. CODE: 1607

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Classify Clostridium. Describe the laboratory diagnosis and prophylaxis of gas gangrene
2. Mention the general properties of the family Enterobacteriaceae. Discuss in the detail the laboratory diagnosis of Enteric fever
3. Describe the morphology, life cycle, pathogenicity and laboratory diagnosis of Ancylostoma duodenale

SHORT ESSAYS (Answer any Eight) **8 x 5 = 40 Marks**

4. Coagulase negative Staphylococcus
5. DPT vaccine
6. Laboratory diagnosis of bacillary dysentery
7. Blood culture
8. Laboratory diagnosis of syphilis
9. Life cycle of malarial parasite
10. Giardia lamblia
11. Cysticercus cellulosae
12. Laboratory diagnosis of filariasis
13. Life cycle of Taenia solium

SHORT ANSWERS **10 x 2 = 20 Marks**

14. Bile solubility test
15 Mention the diarroheagenic Escherichia coli
16. Mantoux test
17. Enumerate any two bacteria causing sexually transmitted disease
18. Mention any two anaerobic bacteria
19. NIH swab
20. Hydatid cyst
21. Mention the Concentration techniques for stool examination
22. Define definitive host and give examples
23. Mention any two Trematodes pathogenic to humans

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Mar 2013

Time: Three Hours **Max. Marks: 80 Marks**

BIOCHEMISTRY – II (Revised Scheme)

Q.P. CODE: 1608

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Write the normal fasting blood glucose level. Explain the role of hormones in blood glucose homeostasis
2. Give an detailed account of chemistry, dietary sources, daily requirements, function and deficiency disorders of vitamin – C
3. What is enzyme inhibition? Explain the defferent types of enzyme inhibitions

SHORT ESSAYS (Answer any Eight) **8 x 5 = 40 Marks**

4. Biologically important compounds from cholesterol
5. Classification of carbohydrates
6. Enzymes in liver disease
7. Spectrophotometry
8. Wald's visual cycle
9. Vitamin – B12
10. Abnormal constituents of urine
11. Glycogen storage diseases
12. Serum electrophoresis
13. Ketogenesis

SHORT ANSWERS **10 x 2 = 20 Marks**

14. Importance of HMP shunt pathway
15 Key gluconeogenic enzymes
16. 2, 3, Biphosphoglycerate
17. Bence – jhones proteins
18. Dietary fibre
19. Uric acid
20. Urine preservatives
21. Rickets
22. Glycosuria
23. Kwashiorkor

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