1608_2012_1_S222

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Feb / Mar 2012

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. Give an account of chemistry, dietary source, absorption, daily requirements, functions and deficiency disorders of vitamin – A
2. Discuss in detail metabolism of glycogen in our body
3. What are enzymes? Explain the various factors which affect the enzyme catalysed reaction

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

4. Ketogenesis
5. Serum electrophoresis
6. Flame photometry
7. Vitamin E
8. Oral glucose tolerance test
9. Folic acid
10. Basal metabolic rate
11. Cardiac markers
12. Nitrogen balance
13. Gluconeogenesis

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

14. Pellagra
15. Benedict's test
16. Dietary fibre
17. Write the normal levels of serum total protein, albumin, SGOT and SGPT
18. Standard solutions
19. Lactose intolerance
20. Creatinine clearance tests
21. 2, 3, Diphosphoglycerate
22. Gout
23. Kwashorkar

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1233_2012_1_S159

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Feb / Mar 2012

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. What are the uses of improved Neubauer counting chamber. Describe the method of estimating WBC count.
2. Describe the steps in tissue processing of a formalin fixed specimen. Add a note on the different types of microtomes.
3. Describe normal homeostasis and the tests used in the diagnosis of bleeding disorders.

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

4. Hemoglobin estimation.
5. Electron microscopy.
6. Mountants.
7. Quality control in a Hematology lab.
8. Care of microtome knives.
9. Osmotic fragility test.
10. Connective tissue stains
11. Anticoagulants.

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

12. Applications fluorescent microscope .
13. List red cell indicies and normal values.
14. Name three decalcifying agents.
15. Fat stains.
16. What is the normal APTT? Name two conditions when it is prolonged.
17. What is regressive staining? Give an example.
18. Types of wax.
19. Write the composition of eosinophil count diluting fluid and the function of each of them?
20. List three fixatives.
21. Reticulocyte count.
22. Name three hemoparasites.
23. Sickling test.

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1231_2012_1_S102

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Feb / Mar 2012

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. Explain BMR. Describe the factors affecting BMR
2. Describe the Embden Meyer pathway (Glycolysis) in the body. Add a note on energetics. Mention clinical significance of this pathway
3. Describe the biological functions, daily requirements, sources and deficiency manifestations of Vitamin A

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

4. Classify Enzymes with suitable examples
5. Give the general principle of spectrophotometer
6. Write a note on a) Osmolality b) Viscosity
7. What is proteinuria? Discuss the causes of proteinuria. Describe the tests used for the detection of albumin in urine
8. Defective enzyme and clinical features of Niemann Pick disease
9. Note on Chylomicrons
10. Michaelis Menten equation
11. Galactosemia

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

12. What are competitive inhibitors?
13. Explain in brief - a) Rickets b) Beri Beri
14. Biological Reference Intervals for the following constituents - a) Blood urea b) Urine Creatinine c) Serum Uric acid
15. Bence – Jones Protein and test method
16. Significance of Specific Dynamic Action (SDA)
17. Application of flame photometry
18. Sources of ascorbic acid
19. Barbiturate estimation
20. Write a note on atherosclerosis
21. Rothera's test
22. Coenzyme activities of Pyridoxal Phosphate
23. Energetics of TCA cycle

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1607_2012_1_S041

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Feb / Mar 2012

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 streptococci. Enumerate toxins produced by Streptococcus pyogenes and laboratory diagnosis of acute streptococcal sore throat
2. Name the sporozoan parasites. Write life cycle and laboratory diagnosis of malaria
3. Classify spirocheates. Write in detail the laboratory diagnosis of syphilis

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

4. Cysticercus cellulosae
5. Laboratory diagnosis of pulmonary tuberculosis
6. Laboratory diagnosis of Hookworm infection
7. Complications of Amoebiasis
8. Morphology of clostridium welchii and Naeglers reaction
9. Widal test
10. Laboratory diagnosis of Brucellosis
11. Satelitism
12. Bacteroides
13. Gonococcal urethritis

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

14. Name haemo flagellates
15 Cholera red reaction
16. Milk ring test
17. Principle of oxidase test
18. Draw labeled diagram of whipworm ova
19. 2 differences between Pneumococcus and streptococcus viridans
20. Methods of urine collection
21. Name the bacterial zoonotic diseases
22. BCG
23. 4 subgroups of shigella

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1232_2012_1_S182

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Feb / Mar 2012

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 fungus based on morphology. Discuss the clinical manifestations and laboratory diagnosis of dermatophytes
2. Describe the morphology, life cycle, pathogenicity, and clinical manifestations of Entamoeba histolytica
3. Classify picorna viruses. Describe the pathogenesis, laboratory diagnosis and prophylaxis of acute paralytic poliomyelitis.

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

4. Sporothrix schenckii
5. Antifungal agents
6. Giardia lamblia
7. Cysticercosis
8. Laboratory diagnosis of filariasis
9. Classification of viruses
10. Clinical manifestations and laboratory diagnosis of Adenoviruses
11. Antigenic markers of Hepatitis B virus

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

12. Name three media used in fungal cultivation
13. Describe the germ tube test
14. Oriental sore
15. Black water fever
16. Hydatid sand
17. Write three differentiating features of S haematobium, S. mansoni, S. japonicum
18. Eggs of Ascaris lumbricoides
19. Cytopathic effects
20. Name any three Arboviral infections seen in India
21. Morphology of Rabies virus
22. Sever acute respiratory syndrome
23. Methods of Human immunodeficiency Virus transmission

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Sep 2012

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. Classify vitamins and briefly discuss Vitamin B1 under following headings: a) Sources b) Daily requirements c) Biological functions d) Deficiency manifestations
2. Explain the biosynthesis of creatimine. Give the Biological Reference Intervals of serum and urine creatinine. Add a note its clinical importance
3. Justify the citric acid cycle (TCA cycle) is the final common metabolic pathway for the oxidation of food stuffs

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

4. Cholesterol synthesis
5. Give the electrophoretic pattern of multiple myeloma
6. Galactosemia
7. Write briefly on nitrogen balance and mention the factors which influence nitrogen balance
8. Enzyme deficiency and clinical features of Lesch – Nyhan syndrome
9. Briefly explain enzyme kinetics
10. Explain the following terms - a) Wavelength of light b) Transmittance c) Monochromator d) Cuvette e) Beer's law
11. Describe the reactions in the synthesis of urea

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

12. Mention the coenzymes of Niacin
13. Flame Photometer
14. Role of dietary fibers
15. Biological Reference Interval for the following constituents: a) Serum Triglycerides b) Serum SGOT / AST c) Serum Albumin
16. Zellweger's syndrome
17. A note on Pellagra
18. List the organic constituents of urine
19. Estimation of amphetamines
20. What is RDA? List the factors affecting RDA
21. Lactose intolerance
22. What are Isomerases? Give two examples
23. Active site of an enzyme

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination - Sep 2012

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. Enumerate parasites found in blood. Describe briefly Morphology, life cycle, Pathogenicity and Laboratory diagnosis of Plasmodium falciparum.
2. List the Hepatitis viruses. Describe the Morphology, life cycle, Pathogenicity, laboratory diagnosis and prophylaxis of hepatitis B virus.
3. Name the Cestodes pathogenic to man. Explain briefly Morphology, lifecycle, pathogenicity and Laboratory diagnosis of Echinococcus granulosus.

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

4. Pathogenicity and laboratory diagnosis of Amoebiasis
5. Microfilaria
6. Life cycle and pathogenicity of Aneylostoma duodenale
7. Immunoprophylaxis of Polio
8. Swine Influenza
9. Herpes simplex virus
10. Histoplasmosis
11. Dermatophytes

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

12. Egg of Trichuris trichiura
13. Morphology of Giardia Lamblia
14. NIH Swab
15 Eggs of Ascaris Lumbricoides
16. Name three Antiviral agents
17. Interferon
18. Inclusion Bodies
19. Paul Bunnell Test
20. Draw a neat labeled diagram of Bacteriophage
21. Lactophenol cotton blue
22. Define Dimorphic fungi. Give TWO examples.
23. Three differences between Mucor and Rhizopus.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Sep 2012

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. Name the bacteria producing diarrhea. Write the laboratory diagnosis of bacillary dysentery
2. Enumerate intestinal nematodes. Write the life cycle and laboratory diagnosis of Ascaris lumbricoides
3. Name the spore bearing bacteria. Write the laboratory diagnosis of Gas gangrene

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

4. Virulence testing in diphtheria
5. Laboratory diagnosis of typhoid fever
6. Yersinia pestis
7. Erythrocytic stages in malaria
8. Tuberculin test
9. Petroffs concentration technique
10. Non bile stained ova
11. Draw and label morphological forms of trichomonas vaginalis
12. Laboratory diagnosis of Toxoplasmosis
13. Differences between classical and El-Tor vibrios

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

14. Microfilaria
15 Toxins produced by staphylococcua aureus
16. Name 2 anaerobic media
17. Name halophilic vibrios
18. Name the brucella species
19. Name intermediate hosts in fasciola hepatica
20. Name the two specific tests for syphilis
21. Lepra reaction
22. Name 2 citrate utilizing bacteria
23. What is MRSA?

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – Sep 2012

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. Describe the reactions of gluconeogenesis. Mention its significance
2. Describe the source, daily requirements, deficiency disorders and biochemical role of Vitamin A
3. Classify enzymes with an example for each class

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

4. G.T.T
5. Describe the blood samples collection, add a note on anticoagulants
6. Isoenzymes
7. Polysaccharides
8. Biochemical functions of pyridoxine
9. Classification of carbohydrate
10. Functions of TCA cycle
11. Factors affecting enzyme activity
12. Enzyme inhibition
13. Describe the biochemical functions of pyridoxine

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

14. Biotin
15 Functions of folic acid
16. Name the biochemical function of Vitamin B_{12}
17. Functions of Ascorbic acid
18. Rickets
19. Difference between Starch and Glycogen
20. Name Mucopolysaccharides. Mention their function
21. Uses of flame photometer
22. Effect of temperature on enzyme activity
23. Uses of spectrophotometer

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