

M.Sc. MEDICAL I YEAR ANNUAL EXAMINATION 2009-10

Course Code:MSC101

Paper ID:0571101

Basics of Anatomy

Time: 3 Hours

Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer to 50 words). (3x5=15)
 - a) Explain the terms, flexion and extension of limbs with examples.
 - b) Draw the labeled diagram of front view of Humerus bone showing attachments.
 - c) Enumerate the functions of skin.
 - d) Development of long bone.
 - e) Thymus gland.
 - f) General features of stomach.
 - g) Prostate gland.
 - h) Mitochondria.
2. Describe the gross features of Uterus and relations. (12)
3. Write in brief (with diagrams) the gross features of Liver. (12)
4. Draw the labeled diagram of the femur bone (anterior and posterior view) along with attachments. (12)
5. Parts of Human brain, along with functions of cerebellum. (12)
6. Describe the general features of kidney, with diagrams of internal structure. (12)
7. Classify the joints, with special reference to the synovial joints with examples. (12)
8. Describe the muscles of abdominal wall, antro-lateral group. (12)

SUPPLEMENTARY M.Sc. MEDICAL I YEAR ANNUAL EXAMINATION 2009-10

Course Code:MSC101

Paper ID:0571101

Basics of Anatomy

Time: 3 Hours

Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Explain any five of the following (limit your answer to 50 words). (3x5=15)
 - a) Anatomical Position.
 - b) Characteristic features of smooth muscles.
 - c) Enumerate the functions of skin.
 - d) Classification of bones with examples.
 - e) Structure forming the Lymphatic System, and their specific functions.
 - f) General features of large and small intestine.
 - g) Enumerate the cranial nerves.
 - h) What is cell division? Give details of mitosis.
2. Describe the gross features of urinary bladder and its relations. (12)
3. Write in brief the (with diagrams) the gross features and functions of pancreas. (12)
4. Draw the labeled diagram of the scapula bone (anterior and posterior view) along with attachments. (12)
5. Parts of Human nervous system along with details of spinal cord. (12)
6. Describe the general features of testis, with diagrams of internal structure. (12)
7. Classify the joints, with special reference to the synovial joints with examples. (12)
8. Describe male urethra in details. (12)

M.Sc. MEDICAL I YEAR ANNUAL EXAMINATION 2009-10

Course Code:MSC102

Paper ID:0571102

Basics of Physiology

Time: 3 Hours

Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
 - a) Write a short note on the Cardiac sounds.
 - b) Describe the functions of Saliva. How their secretion takes place?
 - c) What is Astigmatism?
 - d) Discuss the functions of frontal cortex and its applied aspects.
 - e) Write in short about the membrane potential.
 - f) What is Synapse? Describe its properties.
 - g) Draw a labeled diagram showing microscopic structure of Testis.
 - h) Write short note on ECG.
2. Write in detail about the structure, function and classification of Neurons. (12)
3. Enumerate the hormones secreted by Pituitary gland. Describe the functions of growth hormone. (12)
4. Describe the functional anatomy of the respiratory system. (12)
5. Briefly describe the structure of nephron. How the kidney maintain the acid base balance. (12)
6. What is Membrane transport? Give the detail description of all types of Membrane transporters. (12)
7. Explain the synthesis, functions and fate of Haemoglobin. (12)
8. Describe the functions of Hypothalamus. (12)

SUPPLEMENTARY M.Sc. MEDICAL I YEAR ANNUAL EXAMINATION 2009-10

Course Code:MSC102

Paper ID:0571102

Basics of Physiology

Time: 3 Hours

Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
 - a) Define hypoxia. Discuss the effect of different types of hypoxia.
 - b) Discuss the formation of Thyroid hormone and add a note on hypothyroidism.
 - c) Compare the functions of cardiac muscle and skeletal muscle.
 - d) Describe the pyramidal and extrapyramidal pathway.
 - e) Write short note on Neuron.
 - f) Write short note on Mitochondria.
 - g) Define Immunity and its types.
 - h) Describe the Spermatogenesis.
2. Explain the composition, regulation and functions of saliva. (12)
3. Discuss the counter current mechanism. How the urine formation takes place, give the detail description. (12)
4. Describe the structure and mechanism of contraction and relaxation of smooth muscle. (12)
5. Describe the refractive errors of eye. (12)
6. Describe the functions of Hypothalamus. (12)
7. Describe the structure of internal ear and its mechanism of hearing. (12)
8. Explain the synthesis, functions and fate of Haemoglobin. (12)

**SUPPLEMENTARY M.Sc. MEDICAL I YEAR ANNUAL
EXAMINATION 2009-10**

Course Code:MSC102

Paper ID:0571102

Basics of Physiology

Time: 3 Hours

Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
 - a) Define hypoxia. Discuss the effect of different types of hypoxia.
 - b) Discuss the formation of Thyroid hormone and add a note on hypothyroidism.
 - c) Compare the functions of cardiac muscle and skeletal muscle.
 - d) Describe the pyramidal and extrapyramidal pathway.
 - e) Write short note on Neuron.
 - f) Write short note on Mitochondria.
 - g) Define Immunity and its types.
 - h) Describe the Spermatogenesis.
2. Explain the composition, regulation and functions of saliva. (12)
3. Discuss the counter current mechanism. How the urine formation takes place, give the detail description. (12)
4. Describe the structure and mechanism of contraction and relaxation of smooth muscle. (12)
5. Describe the refractive errors of eye. (12)
6. Describe the functions of Hypothalamus. (12)
7. Describe the structure of internal ear and its mechanism of hearing. (12)
8. Explain the synthesis, functions and fate of Haemoglobin. (12)

M.Sc. MEDICAL I YEAR ANNUAL EXAMINATION 2009-10

Course Code:MSC103

Paper ID:0571103

Basics of Biochemistry

Time: 3 Hours

Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
 - a) Write the difference between Active and Passive Transport.
 - b) Write a short note on mutarotation.
 - c) Difference between Hemoglobin and Myoglobin.
 - d) What are enzyme inhibitors? Write the kinetics of Competitive Inhibition.
 - e) What are Vitamins? Which vitamin is maximally required for normal carbohydrate metabolism?
 - f) What are Xenobiotics?
 - g) Define the Monoclonal antibodies.
2. Write the composition of Blood. Discuss the function of haemoglobin. (12)
3. Describe the β -oxidation of Fatty acids. Give the energetics of this pathway. (12)
4. Write the diagnostic importance of enzymes. (12)
5. Write the various types of lipoprotein present in our body. Discuss atherosclerosis. (12)
6. What are mutations. Discuss the various types of mutations. (12)
7. What are Free radicals? Write briefly about antioxidants. (12)
8. Discuss kidney function tests. (12)

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Course Code:MSC103

Paper ID:0571103

Basics of Biochemistry

Time: 3 Hours

Max. Marks: 75

Note: Attempt six questions in all. Q. No. 1 is compulsory.

1. Answer any five of the following (limit your answer in 50 words). (3x5=15)
 - a) Write difference between DNA and RNA.
 - b) Discuss phospholipids.
 - c) Discuss the role of zinc in our body.
 - d) Describe briefly the structure of cell membrane.
 - e) What are Essential Fatty acids and why they are important for our body?
 - f) What is anaemia? What are the different types of anaemia.
 - g) Write briefly about mitochondrion.
2. What are Enzymes? Classify them. Write their functions in our body. (12)
3. What are vitamins? Discuss importance of vitamin C in our body. (12)
4. Write the biochemical functions of calcium in our body. (12)
5. Write in brief about the balanced diet and balanced diet programme. (12)
6. Discuss the urea cycle and its associated disorders. (12)
7. What are xenobiotics? How are they detoxified in our body? (12)
8. Describe the mechanism of DNA replication in Eukaryotes. (12)