**M.B.B.S. [1st Prof.]**

# BF/2015/11

## Anatomy – A

M.M. : 50 Time : 3 Hours

Note *:*  Attempt all questions. Illustrate your answers with suitable diagrams.

 **USE SEPARATE ANSWER SHEET FOR EACH PART.**

**PART - I**

1. **Describe the parotid gland under the following headings.**

 a. Surfaces & relations. [3]

 b. Nerve supply. [2]

 c. Applied Anatomy. [2]

2. **Write short notes on**:

 a. Ciliary ganglion. [3]

 b. IVth ventricle. [3]

 c. Supination & pronation of forearm. [3]

3. **Draw labelled diagrams only to show:**

a. Anastomosis around scapula. [3]

 b. Boundaries & contents of posterior triangle of neck. [3]

 c. Transverse section of spinal cord to show the ascending tracts. [3]

**PART – II**

4. **Describe briefly:**

a. Lymphatic drainage of mammary gland & its applied anatomy. [4]

 b. Cervical fascia & its applied anatomy. [4]

5. **Write short notes on**:

 a. Histology of cancellous bone. [3]

 b. Collateral circulation. [3]

 c. Notochord. [3]

6. **i. Enumerate the following**:

 a. Structures forming the boundaries of posterior horn of lateral ventricle.

[1]

 b. Contents of orbital fossa. [1]

 c. Modifications of deep fascia. [1]

 d. Branches of basilar artery. [1]

**ii. Discuss applied anatomy of:-**

 a. Injury to radial nerve in radial groove. [2]

 b. Syringing of external ear with cold water. [2]

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## Anatomy – B

M.M. : 50 Time : 3 Hours

Note: Attempt all questions. Illustrate your answers with suitable diagrams.

 **USE SEPARATE ANSWER SHEET FOR EACH PART.**

**PART - I**

1. **Describe ovary under the following headings:-**

 a. Gross anatomy [3]

 b. Relations. [3]

 c. Histology. [3]

2. **Discuss briefly**:

 a. Left coronary artery. [3]

 b. Typical intercostal nerve. [3]

 c. Klinefelter’s syndrome. [2]

3. **Write short notes on:**

a. Umbilical cord. [2]

 b. Lesser omentum. [2]

 c. Changes in circulation at birth. [2]

 d. Differences between Jejunum and Ileum. [2]

**PART – II**

4. **Draw and label:**

 a. Interior of right atrium. [2]

 b. Inferior surface of liver. [2]

 c. Superior view of the upper end of right tibia. [2]

 d. Anterior relations of right kidney. [2]

5. **Discuss in brief:**

 a. Bile and pancreatic ducts with their sphincters. [4]

 b. Lateral longitudinal arch of foot. [4]

6. **Explain the anatomical/ embryological basis of the following:**

 a. Femoral Hernia. [3]

 b. Caput medusae. [3]

 c. Anomalies of mid gut. [3]

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# BF/2015/11

## Physiology – A

M.M. : 50 Time : 3 Hours

Note: Attempt all questions.

 **USE SEPARATE ANSWER SHEET FOR EACH PART.**

**PART - I**

1. Describe the signs, symptoms and treatment of Parkinson’s disease. [5+5=10]

2. **Write short notes on:**

 a. Withdrawal reflex. [3]

 b. Myasthenia gravis. [3]

 c. Binocular vision. [3]

3. **Describe briefly:**

 a. Speech disorders. [3]

 b. Referred pain. [3]

**PART – II**

4. a. Describe phases of menstrual cycle and its hormonal regulation. [4]

 b. Oral contraceptive pills. [4]

5. **Write notes on**:

 a. Milk ejection reflex. [3]

 b. Cushing syndrome. [3]

 c. Precocious puberty. [3]

6. **Describe briefly:**

 a. Tests to detect ovulation. [2]

 b. Thyroid function tests. [4]

 c. Cryptorchidism. [2]

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## Physiology – B

M.M. : 50 Time : 3 Hours

Note : Attempt all questions.

 **USE SEPARATE ANSWER SHEET FOR EACH PART.**

**PART - I**

1. Give an account of respiratory centres and factors affecting it. Add a note on genesis of respiration. [2+5+3=10]

2. **Write short notes on:-**

 a. Blood transfusion reactions. [4]

 b. Bleeding disorders. [3]

3. **Write briefly about:-**

 a. Mucosal bicarbonate barriers. [4]

 b. Brunner’s glands. [4]

**PART – II**

4. **Briefly describe:-**

 a. Renin- angiotension system. [5]

 b. Artificial kidney. [3]

5. **Describe:-**

 a. J-point in E.C.G [4]

 b. Resting vagal tone. [5]

6. **Explain** **why:-**

 a. Oedema in hypoproteinemia. [2]

 b. Urine becomes alkaline after meals. [2]

 c. Incresed micturation during nervousness. [2]

 d. There is a need to record 12 leads ECG. [2]

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# BF/2015/11

## Biochemistry – A

M.M. : 50 Time : 3 Hours

Note: Attempt all questions.

 **USE SEPARATE ANSWER SHEET FOR EACH PART.**

**PART - I**

1. **Write short notes:**

a. Acetyl CoA transport from mitochondria to cytosol for fatty acid synthesis. [3]

 b. Role of glutamate in urea cycle. [3]

 c. Transport of exogenous and endogenous triglycerides in plasma? [3]

2. **Answer briefly:-**

a. Indicate the normal protective mechanisms in RBC’s against formation of Methemoglobin. [3]

 b. Why fructose leads to enhanced fatty acid synthesis than glucose. [2]

 c. Metabolic derangements and consequences of ketosis. [3]

3. **Briefly** **Explain:-**

 a. Muscle glycogen does not produce free glucose. [3]

 b. Lipotropic factors prevent fatty liver. [3]

 c. Gout. [2]

**PART – II**

4. **Describe in detial:-**

a. Outline the cholesterol synthesis pathway. Give its regulation and the biologically important compounds derived from Cholesterol. [3]

 b. Metabolism of glycine & related disorders. [3]

 c. Importance of HMP shunt pathway. [3]

5. **Write in brief:-**

a. Allosteric regulation using PFK as an example. [3]

 b. Classify phospholipids giving examples. Discuss various Phospholipases. [3]

 c. Donnan membrane equilibrium. [2]

6. **Write notes on**:-

 a. Inhibitors of Electron transport chain. [3]

 b. Biochemical actions of vitamin C. [3]

 c. Coenzyme action of Pyridoxin and Vitamin B12. [2]

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**M.B.B.S. [1st Prof.]**

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## Biochemistry – B

M.M. : 50 Time : 3 Hours

Note : Attempt all questions.

 **USE SEPARATE ANSWER SHEET FOR EACH PART.**

**PART - I**

1. **Discus:-**

a. Buffer systems in blood and explain their role. [3]

 b. Vasopressin and water balance. [2]

 c. PCR. [3]

2. **Discuss:-**

a. Liver function tests with special reference to pigments and enzymes. [5]

 b. Biochemical picture in metabolic acidosis. [3]

3. **Write briefly on:-**

a. DNA repair mechanisms. [3]

 b. Restriction enzymes. [3]

 c. Role of motiffs in regulation of gene expression. [3]

**PART – II**

4. **Discuss:**

 a. Initiation of eukaryotic protein synthesis. Also discuss action of antibiotics. [4]

 b. Metabolism of iron and its disorders. [3]

 c. Biochemical role of zinc, selenium & magnesium. [2]

5. **Write briefly on:-**

a. Role of cytP450 in metabolism of xenobiotics. [3]

 b. Vectors and probes. [2]

 c. Wilson’s disease. [2]

6. **Write short notes on:-**

 a. Clearance tests. [3]

 b. Regulation of calcium and phosphorus metabolism. [3]

 c. HPLC. [3]

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