

First BHMS Physiology & Biochemistry Question Papers
Calicut University
2008 - 2009

FIRST YEAR B.H.M.S. DEGREE EXAMINATION, MAY 2008.
Paper.III—PHYSIOLOGY INCLUDING BIOCHEMISTRY—Paper. I (New Scheme)
Time : Three Hours Maximum: 100 Marks
Draw diagrams where necessary.

I. Classify Plasma Proteins. Explain the functions and properties of plasma proteins. How they are separated into different fractions ? (2+8+5= 15 marks)

11. Which are the muscles of Respiration ? Briefly explain the mechanism of Respiration. Add a note on surfactant. (2 + 9 + 4= 15 marks)

III. Write briefly on

(a) Factors affecting Blood Pressure.

(b) Auditory Pathway. (10 + 10 = 20 marks)

IV. Name the Junctional Tissues of Heart. Explain the spread of Cardiac impulse. Add a note on normal E.C.G. (3 + 6 + 6= 15 marks)

V. Name the Receptors of vision. Classify and explain the errors of Refraction in detail. Add a note on colour Blindness. (2 + 8 + 5= 15 marks)

VI. Write short notes on:

(a) Pellagra.

(b) H ion secretion in Renal Tubules.

(c) Glomerular Filtration Rate.

(d) Deficiency Manifestations of Vitamin-A. (4 x 5 20 marks)

FIRST YEAR B.H.M.S. DEGREE EXAMINATION, MAY 2008.
Paper.III—PHYSIOLOGY INCLUDING BIOCHEMISTRY—Paper. II

I. Name the nuclei of Cerebellum. Discuss the connections, functions and also the effects of lesions of Cerebellum. (2 +4+4+5 =15 marks)

11. Name the female Sex Hormones. Explain their actions in detail. How they are regulated? (2 + 8 + 5 =15 marks)

III. Write briefly on

(a) 3-oxidation of fatty acids.

(b) Synthesis of cholesterol. (10 + 10= 20 marks)

IV, What are the constituents of Gastric juice ? Explain the mechanism of secretion and functions of HCl. (15 marks)

V. Compare the properties of skeletal, smooth and cardiac muscles. Explain the mechanism of transmission of impulse to a skeletal muscle. (9 + 6 = 15 marks)

V I. Write short. notes on:

- (a) Succus Entericus.
- (b) Thalamus. U
- (c) Uronic Acid Pathway.
- (d) Gastrin. (4 x 5 = 20 marks)

FIRST YEAR B.H.M.S. DEGREE EXAMINATION, MAY 2009.

PAPER III-PHYSIOLOGY AND BIOCHEMISTRY PAPER I

1. Write in detail about the type, synthesis, functions and fate of haemoglobin. Name some of the derivatives of haemoglobin. (2+4+3+4+2=15 marks)
 2. Name the muscles of inspiration and expiration. Write the mechanism of breathing. (3+12=15 marks)
 3. Define GFR. What are the factors influencing the GFR. Add a note on inulin clearance test. (2+10+3=15 marks)
 4. Describe the optic pathway. Add a note on lesions of optic pathway. (10+5=15 marks)
 5. Explain the mechanism involved in the regulation of body temperature. (10 marks)
6. Write short notes on
- a. Osmosis
 - b. RES
 - c. functions of spleen
 - d. ABO system
 - e. ECG
 - f. Long term regulation of blood pressure. (30 marks)

FIRST YEAR B.H.M.S. DEGREE EXAMINATION, MAY 2009.

PAPER III-PHYSIOLOGY AND BIOCHEMISTRY PAPER II

1. Name various hormones secreted by anterior pituitary. Describe the functions and deficiency of growth hormone. (2+13 =15 MARKS)
 2. Write the origin, course, termination and functions of the pyramidal tract. Add a note on UMNL (12+3 =15 MARKS)
 3. Write the composition of pancreatic juice. Explain the digestion and absorption of protein (3+12 =15 MARKS)
 4. Define carbohydrate. Classify them. Write briefly about the polysaccharides. (2+6+7 = 15 MARKS)
 5. Explain the source, requirement, functions and deficiency of vitamin D (15 MARKS)
6. Write short notes on
- a. sarco tubular system
 - b. beta oxidation of fatty acids
 - c. testosterone – functions
 - d. BMR
 - e. classify amino acids

FIRST YEAR B.H.M.S. DEGREE EXAMINATION, APRIL 2009.

Paper - 1: PHYSIOLOGY INCLUDING BIOCHEMISTRY

Section A - Explain the

1. Functions of platelets. Mention the pro-coagulation mechanism of coagulation. (2+6+7=15)

11. Write the differences between

- a) Cyanosis and dyspnea
- b) Neutrophils and Eosinophils
- c) Concentration of urine and dilution of urine
- d) E.S.R. (Erythrocyte Sedimentation Rate) and P.C.V. (Packed Cell Volume)
- e) Extra cellular fluid and Intra cellular fluid. (5x3=15 Marks)

111. Write short notes on :

- a) Sodium excretion through urine
- b) Diffusion of molecules and ions
- c) Haemoglobin
- d) Reticuloendothelial system
- e) Apex beat. (5x4=20 Marks)

SECTION - B

1. Mention the junctional tissues of heart. Explain the origin and spread of cardiac pulse. (3+12=15)

II. Write briefly : a) Lyxoxia

b) Oxygen dissociation curve

c) E.C.G. (5x3=15 Marks)

III. Write short notes on : a) Astigmatism

b) Organ of Corti c) Visual Pathway d) Lymph

e) Sino aortic reflex. (5x4=20 Marks)

FIRST YEAR B.H.M.S. DEGREE EXAMINATION, APRIL 2009.

PHYSIOLOGY INCLUDING BIOCHEMISTRY (Paper - II)

I. Describe briefly the functions of amino acids. Explain the synthesis of urea in the body. (7+7=14)

II. Write the differences between

a) Transcription and Translation.

b) Myenteric plexus and Meissner's plexus.

c) Medial Lemniscal system and Antcrolateral system. d) Glycogenesis and Glycogenolysn.

e) Competitive and Non competitive inhibition. (5x3=15 Marks)

III. Write short notes on :

a) Essential fatty acids

b) Balanced diet

c) Transfer RNA

d) Synapse

e) Active site

f) Haptoglobin

g) Carnitine (7x3=21 Marks)