

[LD 502]

NOVEMBER 2013

Sub. Code: 4053

FIRST M.B.B.S. DEGREE EXAMINATION
PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time: Three Hours**Maximum: 50 Marks**

Answer **ALL** questions

I. Elaborate on:**(2 x 7.5 = 15)**

1. Describe digestion and absorption of fat in the digestive tract.
Write a note on steatorrhoea.
2. What do you understand by the terms innate and acquired immunity?
Describe the phenomenon of cell-mediated immunity.

II. Write notes on:**(10 x 2.5 = 25)**

1. G-protein coupled receptors.
2. Primary active transport.
3. Autoregulation of GFR.
4. Renal glycosuria.
5. Mechanism of bicarbonate generation in distal tubule.
6. Stimuli for secretion of aldosterone and actions of aldosterone.
7. Pancreatic C-peptide and its significance as a laboratory test.
8. Cretinism – its cause, features and strategy to prevent it.
9. What is the function of corpus luteum of pregnancy? How is it supported?
10. Parturition.

III. Short Answers on:**(10 x 1 = 10)**

1. Extracellular fluid volume and blood volume in an adult male weighing 70 Kg.
2. Calcium transporters on the membrane of sarcoplasmic reticulum.
3. Mechanism of edema in congestive cardiac failure.
4. State a manifestation of Hypocalcemic tetany. Give one cause leading to this condition.
5. List the Vitamin K-dependent coagulation factors.
6. Rh status of mother, father and child for occurrence of Rh incompatibility.
7. Role of tropomyosin in muscle contraction.
8. Type of acetyl choline receptor on skeletal muscle and its function.
9. Hormones secreted by hypothalamus.
10. Hormonal defect in (a) Addison's disease (b) Conn's syndrome.