SS/MBBS/PHY-I/7-16

First Professional MBBS Examination

2016

(July)

PHYSIOLOGY

Paper-I

Full Marks: 50

Time: 2 hours

The figures in the margin indicate

full marks for the questions

Write the answers to the two Halves in separate books

Answer all questions

FIRST HALF

1. Name the junctional tissues in heart. Give a brief account with diagram of the spread of cardiac impulse on the heart. What is idioventricular rhythm? (2+6+2=10)

Or

What are the different types of plasma proteins? Discuss the functions of plasma protein. What is oedema? (2+6+2=10)

2. Give physiological explanations of any three of the following :

(a) Vitamin B_{12} deficiency causes megaloblastic anaemia

(b) Low-dose aspirin is prescribed in patients with coronary thrombosis

(c) Obstructive jaundice patients may present with coagulation defects

(d) Coronary circulation in left ventricle occurs mainly in diastole

3. Fill in the blanks : (1 x 6 = 6)

(a) In the liver, the macrophages are called _____.

(b) _____ are the precursors of plasma cells which produce immunoglobulins.

(c) Tuberculosis is more common in _____ region of lungs.

(d) In foetal haemoglobin, oxygen dissociation curve shifts to _____.

(e) Gastric juice is highly acidic due to _____.

(f) B lymphocytes are responsible for immunity.

SECOND HALF

4. What is eupnoea? Describe the nervous mechanism of regulation of rhythmic respiration. What is oxygen debt? (2+6+2=10)

Or

What are the constituents of gastric juice? Describe the mechanism of HCl secretion. Write briefly about gastric mucosal barriers. (3+5+2=10)

5. Write short notes on any three of the following : (3 x3 = 9)

(a) Dumping syndrome

(b) Cheyne-Stokes breathing

(c) Decompression sickness

(d) Countercurrent multiplier system

(e) Tissue macrophage system

6. Write the differences between any three of the following : (2 x3 = 6)

(a) Tubuloglomerular feedback and Glomerulotubular balance

(b) Core temperature and temperature

(c) Bohr effect and Haldane effect

(d) Resting membrane potential and Action potential

(e) Liver bile and Gallbladder bile

******

SM16—1000/43 SS/MBBS/PHY-1/7-16