Total No. of Printed Pages - 3

SS/MBBS-I/PHY-II/08-24

2024

(August)

PHYSIOLOGY

Paper-II

Full Marks: 90

Time: 2 hours 50 minutes

The figures in the margin indicate

full marks for the questions

Answer all questions

1. Enumerate the different phases of the cardiac cycle with duration. Correlate heart sounds and intraventricular pressure changes with different phases of the cardiac cycle with a diagram. What is Frank-Starling's Law?

[5 + 8 + 2 = 15]

2. Write short notes on the following: [5 × 7 = 35]

   (a) Intrinsic pathway of blood coagulation

   (b) Characteristic features of coronary circulation

   (c) Mechanism of acclimatization

   (d) PR interval and its clinical importance

   (e) Dietary fibres

   (f) Micturition reflex

   (g) Pathophysiology of peptic ulcer

3. Discuss the need and importance of lifelong learning by a physician.   5

4. What are the different types of salivary glands? Describe the composition, functions, and regulation of secretion of saliva.

$$3 + (4 + 4 + 4) = 15$$

5. Give the physiological basis of: 2x3=6

   (a) Rh incompatibility

   (b) Sigmoid shape of the oxygen-haemoglobin dissociation curve

   (c) There is Improvement of higher intellectual activities in persons practising Yoga.

6. Differentiate between: 2x2=4

   (a) Water diuresis and Osmotic diuresis

   (b) Oxygen deficit and Oxygen debt

7. A 50-year-old lady visits a clinic with complaints of difficulty in breathing and fatigue. She has heavy menstrual loss of blood for the past 3 months. Her haemoglobin level is 6 gm%, PCV is 20%, and MCV is 62 cubic microns.

$$2 + 3 + 3 + 2 = 10$$

   (a) Name the clinical condition.

   (b) Describe the blood picture in this condition.

   (c) Write the pathophysiology of this condition.

   (d) How will you manage the case?

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