

16M00A03

Madhya Pradesh Medical Science University

First MBBS Examination (Winter Session)

Physiology paper I

Time: 3 Hours

Maximum Marks: 50

Note: (a) Attempt all questions in the same serial order.
(b) Draw well labeled diagram wherever necessary.

1. Oxygen delivery to tissues is greatly reduced in a patient with carbon monoxide poisoning in this case answer the following: (1+3+1=5)
 - (a) What is the physiological basis of reduced oxygen delivery to the tissues?
 - (b) Describe the functional significance of oxygen-hemoglobin dissociation curve.
 - (c) Mention the factors which will shift oxygen dissociation curve to right and left.
2. Describe composition of pancreatic juice and regulation of its secretion. (2+3=5)
3. Write short notes on :- (3x10=30)
 - A. Baroreceptor reflex
 - B. Cardiac action potential
 - C. Bainbridge reflex
 - D. Fick's principle and its uses
 - E. Glomerular filtration rate
 - F. Functions of Loop of Henle
 - G. Functions of plasma albumin
 - H. ABO blood group system
 - I. Lung volumes and capacities
 - J. Peripheral chemoreceptors
4. Define the following:- (1x10=10)
 - A. Emulsification
 - B. Dead space
 - C. FEV₁
 - D. Peristalsis
 - E. Postprandial alkaline tide
 - F. Diuresis
 - G. Renal clearance
 - H. Arterial blood pressure
 - I. Active Transport
 - J. Osmotic pressure