

**Madhya Pradesh Medical Science University (MPMSU)****1st Professional MBBS Examination****Paper Code: 16M00A03****2015 (Winter Session)****Physiology Paper- I**

Time 3 Hours

Max. Marks: 50

Note: (a) Attempt all questions in the same serial order.

(b) Draw well labelled diagrams wherever necessary.

Q1. Oxygen delivery to tissues is greatly reduced in a patient 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.

Q2. Describe composition of pancreatic juice and regulation of its secretion. (2+3=5)

Q3. 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



Q4. Write in brief:

10x10=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

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