



PQ-7792

Seat No. _____

First Year B. Physiotherapy Examination

July - 2018

Physiology

(Old Course)

Time : **3 Hours]**

[Total Marks : **100**

- Instructions :**
- (1) Write answers of each section in separate answer book.
 - (2) Answers should be brief and draw necessary diagrams.
 - (3) Illegible writing will not fetch any marks.
 - (4) Figures to the right indicate full marks.

SECTION – I

- 1** Describe the following : (any **two**) **20**
 - (a) Erythropoiesis
 - (b) Cardiac output
 - (c) Long term regulation of blood pressure

- 2** Write notes on : (any **two**) **10**
 - (a) Saliva
 - (b) Glomerular filtration rate
 - (c) Oxygen dissociation curve.

- 3** Write in brief : (any **five**) **10**
 - (a) Functions of thrombocyte
 - (b) Name functions of kidney
 - (c) Functional residual capacity
 - (d) Define anaemia
 - (e) Define peristalsis
 - (f) Define Homeostasis

4 Answer the following questions : (write the correct answer) 10

- (i) The blood group having no agglutinin is :
(A) A (B) B
(C) O (D) AB
- (ii) Almost 90% of the carbon dioxide is carried as :
(A) Dissolved form (B) Carbonic acid
(C) Carbonic anhydrase (D) Bicarbonate
- (iii) The T wave of ECG is due to :
(A) Atrial depolarization
(B) Atrial repolarization
(C) Ventricular depolarization
(D) Ventricular repolarization
- (iv) The second heart sound is mainly due to :
(A) Closure of Atrioventricular valves
(B) Closure of Semilunar valves
(C) Turbulent flow of blood in aorta
(D) Inflow of blood from ventricle to aorta
- (v) The digestive function of bile pigments :
(A) in digestion of fat
(B) in digestion of protein
(C) in digestion of carbohydrate
(D) no digestive function
- (vi) Most potent respiratory stimulant is :
(A) O_2 (B) CO_2
(C) H^+ (D) None
- (vii) Obligatory volume of urine is :
(A) 500 ml (B) 750 ml
(C) 1000 ml (D) 1500 ml
- (viii) Cardiac output in man under basal condition would be (in litres) :
(A) 2.5 (B) 4.0
(C) 5.0 (D) 7.5
- (ix) Cardiac index is cardiac output per unit :
(A) Body surface area (B) Body weight
(C) Body volume (D) Time
- (x) Shifting of oxygen haemoglobin curve to right means :
(A) Decreased O_2 delivery to tissues
(B) Increased O_2 delivery to tissues
(C) Loading of CO_2 to blood
(D) Loading of O_2 to blood

SECTION – II

- 5** Describe the following : (any **two**) **20**
- (a) Synapse.
 - (b) Hormones responsible for calcium metabolism.
 - (c) Functions of hypothalamus.
- 6** Write notes on : (any **two**) **10**
- (a) Colour vision.
 - (b) Endocrinal function of testes.
 - (c) Newer contraceptives.
- 7** Write in brief : (any **five**) **10**
- (a) Clinical importance of Rigor mortis.
 - (b) Hormones secreted from adrenal medulla.
 - (c) Physiological basis of myopia.
 - (d) Name two ascending tracts of spinal cord.
 - (e) Functions of sodium potassium pump.
 - (f) Clinical importance of neuromuscular junction.
- 8** Answer the following questions : (write the correct answer) **10**
- (i) Increased secretion of growth hormone before puberty leads to:
 - (A) Cretinism
 - (B) Dwarfism
 - (C) Gigantism
 - (D) Acromegaly
 - (ii) Which is not a posterior pituitary hormone ?
 - (A) Prolactin
 - (B) ADH
 - (C) Oxytocin
 - (D) Vasopressin
 - (iii) Which one of the following is not a part of brain stem ?
 - (A) Medulla
 - (B) Midbrain
 - (C) Pons
 - (D) Cerebellum
 - (iv) The colour of eye is due to :
 - (A) Sclera
 - (B) Cornea
 - (C) Lens
 - (D) Iris

- (v) Loss of smell sensation is known as :
- (A) Anosmia (B) Apnoea
(C) Ageusia (D) Anorexia
- (vi) A person is using plus (+) 2.5 diopters spherical lens on his eye. He is suffering from :
- (A) Myopia (B) Hypermetropia
(C) Astigmatism (D) Emmetropia
- (vii) The part of brain serving as a sensory relay station is :
- (A) Thalamus (B) Hypothalamus
(C) Medulla (D) Midbrain
- (viii) Interstitial cell stimulating hormone is same as :
- (A) Lactogenic hormone
(B) Follicle stimulating hormone
(C) Luteotrophic hormone
(D) Luteinising hormone
- (ix) Which one is not an ear ossicle ?
- (A) Malleus (B) Stapedius
(C) Incus (D) Stapes
- (x) The structural and functional unit of nervous system is :
- (A) Oligodendrocyte (B) Dendrite
(C) Cell body (D) Neuron
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