



R-3702

First Year M. B. B. S. Examination
June / July - 2018
Physiology : Paper - I

Time : 2.30 Hours]

[Total Marks : 50

Instructions : (1)

નીચે ઉપરોક્ત નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.		Seat No. :
Name of the Examination : FIRST YEAR M. B. B. S.		Student's Signature
Name of the Subject : PHYSIOLOGY : PAPER - I		
Subject Code No. : 3 7 0 2	Section No. (1, 2,.....) : 1&2	

(2) Draw diagrams and flow charts wherever required.

SECTION - I

- 1 What is pacemaker ? Discuss the origin of heart rate and its conduction pathway. 8
- 2 Write notes on any three : 12
 - (a) Surfactant
 - (b) Vital capacity
 - (c) Effects of CO₂ on control of respiration
 - (d) O₂ dissociation curve
- 3 Explain in brief any five : (in 1-2 sentences) 5
 - (a) Mechanism of aneamic hypoxia
 - (b) Functional difference between lysosome and Peroxisome
 - (c) Difference between Reticulocyte and RBC
 - (d) Physiological role of cytotoxic T cells
 - (e) Abnormality in sickle cell aneamia
 - (f) Erythroblatosis Fetalis

SECTION - II

- 4 Write in brief on any 4 : 8
- (a) Disorders of large intestinal motility
 - (b) Functions of saliva
 - (c) What is excitation-secretion coupling
 - (d) Role of pancreas in protein digestion
 - (e) Name any four Gastrointestinal hormones
- 5 Short notes on any 3 : 12
- (a) T tubules
 - (b) Emptying of urinary bladder
 - (c) Renin angiotensin system
 - (d) Sarcomere
- 6 Explain in briefly following : (any 5) 5
- (a) Importance of saltatory conduction
 - (b) Measurement of GFR
 - (c) Jaundice
 - (d) Tidal volume
 - (e) Symport
 - (f) Bowman's capsule.



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June / July - 2018

Physiology : Paper - II

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 50

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નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.		Seat No. :
Name of the Examination : F. Y. M. B. B. S.		
Name of the Subject : PHYSIOLOGY : PAPER - 2		Student's Signature
Subject Code No. : 3 7 0 3 Section No. (1, 2,.....) : 1&2		

(2) Draw diagrams and flow charts wherever required.

SECTION - I

- 1 Give an account on Physiological anatomy of Cerebellum, 8
its connections and functions.
- 2 Write notes on Any Three : 12
 - (a) Structure and functions of testis
 - (b) Folliculogenesis
 - (c) Regulation of secretion of Gonadotropins
 - (d) Methods to detect ovulation time
- 3 Explain in brief in 1-2 sentences (Any Five) : 5
 - (a) Function of mineralocorticoid
 - (b) Name photo receptors
 - (c) Types of sleep

- (d) What is presbyopia
- (e) Clinical importance of pigmented epithelial layer
- (f) Hormones regulating calcium ion concentration in blood

SECTION - II

- 4 Write notes on Any **Four** : 8
- (a) Explain positive feedback mechanism.
 - (b) Name the neuronal cells in layers of retina
 - (c) Draw and label organ of corti.
 - (d) Importance of optic chiasm in vision
 - (e) Draw and label taste receptor.
- 5 Short notes on Any **Three** : 12
- (a) Synthesis of Thyroid hormone
 - (b) Physiological actions of glucocorticoid
 - (c) Diabetes mellitus
 - (d) Mechanism of action of hormones of posterior pituitary gland
- 6 Answer in briefly for Any **Five** : 5
- (a) Reverberation (property of synapse)
 - (b) Function of Acrosome (of a mature sperm)
 - (c) Name Pain Pathways
 - (d) Function of CSF
 - (e) Types of autonomic receptors
 - (f) Types of Aphasia



R-3702-A

First Year M. B. B. S. Examination

November / December - 2018

Physiology : Paper - I



Time : $2\frac{1}{2}$ Hours]

[Total Marks : 50

Instructions :

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નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.		Seat No. :
Name of the Examination : FIRST YEAR M. B. B. S.		
Name of the Subject : PHYSIOLOGY : PAPER - I		Student's Signature
Subject Code No. : Section No. (1, 2,.....) : Nil		

(2) Draw diagrams and flow chart wherever required.

SECTION - I

- 1 Discuss effects of high altitude on respiratory system and cardiovascular system. 8
- 2 Write notes on any three : 12
 - (a) Erythroblastosis fetalis
 - (b) Function of agranulocytosis
 - (c) Acquired immunity
 - (d) Explain the mechanism of coagulation schematically.
- 3 Answer in brief in 1-2 sentences : (any 5) 5
 - (a) Define sarcomere
 - (b) Causes of Myashtenia gravis
 - (c) Factors maintaining GFR (any 2)
 - (d) Primary role of counter-current multiplier
 - (e) Function of JGA
 - (f) What is Metabolic alkalosis.

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SECTION - II

- 4 Write notes in short on any 4 : 8
- (a) Function of bile
 - (b) Role of HCL in Stomach
 - (c) Secretin
 - (d) Distal convoluted tubule
 - (e) Define Fatigue. What is seat of Fatigue ?
- 5 Short notes on any 3 : 12
- (a) Action potential in cardiac muscle
 - (b) Define Blood pressure. Explain role its determinants in its maintenance
 - (c) Heart sound
 - (d) Explain schematically 'Excitation contraction coupling'.
- 6 Answer in briefly for any 5 : 5
- (a) Role of B1 receptor in cardiac tissue
 - (b) Physiological role of Na-ion (any two)
 - (c) Normal K -ion concentration in ECF
 - (d) Advantages of saltatory conduction
 - (e) Normal total WBC count
 - (f) Function of Albumin.





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Name of the Examination : FIRST YEAR M. B. B. S.		
Name of the Subject : PHYSIOLOGY : PAPER - II		Student's Signature
Subject Code No. : 3 7 0 3 Section No. (1, 2,.....) : Nil		

(2) Draw diagrams and flow charts wherever required.

SECTION - I

- 1 Give an account on Hypothalamic nuclei. Describe the functions of Hypothalamus. 8
- 2 Write notes on any three : 12
 - (a) Semicircular canals
 - (b) Functions of cerebral cortex
 - (c) Draw and label Visual pathway
 - (d) Middle ear functions
- 3 Explain in brief, 1-2 sentences : (any five) 5
 - (a) Define synaptic delay. Mention its normal duration.
 - (b) What is wallerian degeneration ?
 - (c) What is menarche.
 - (d) Synaptic Reverberation.
 - (e) Bitemporal Hemianopia.
 - (f) Broca's area.

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