



R-3702

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

Time : 2.30 Hours]

[Total Marks : 50

Instructions : (1)

नीचे इससेब निशानीवाली विगतो उत्तरवकी पर अवश्य लिखनी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="FIRST YEAR M. B. B. S."/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="PHYSIOLOGY : PAPER - I"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="7"/> <input type="text" value="0"/> <input type="text" value="2"/>	<input type="text" value="Student's Signature"/>
Section No. (1, 2,.....) : <input type="text" value="1&amp;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 CO<sub>2</sub> on control of respiration
  - (d) O<sub>2</sub> dissociation curve
  
- 3 Explain in brief any five : (in 1-2 sentences) 5
  - (a) Mechanism of anemic 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 anaemia
  - (f) Erythroblastosis Fetalis

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[ Contd.....

**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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First Year M. B. B. S. Examination

June / July - 2018

Physiology : Paper - II

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

[Total Marks : 50

Instructions :

(1)

नीचे दस्तावेज निशानोंवाणी विगतो उत्तरवही पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.	Seat No. : □ □ □ □ □ □
Name of the Examination : F. Y. M. B. B. S.	Student's Signature
Name of the Subject : PHYSIOLOGY : PAPER - 2	
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

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- (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



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**First Year M. B. B. S. Examination**  
**November / December - 2018**  
**Physiology : Paper - I**



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

[Total Marks : 50

**Instructions :**

(1)

नीचे दशावेक निशानीवाणी विगतो उत्तरवदी पर अवश्य बानवी. Fillup strictly the details of signs on your answer book.	Seat No. : □ □ □ □ □ □
Name of the Examination : ← <b>FIRST YEAR M. B. B. S.</b>	Student's Signature
Name of the Subject : ← <b>PHYSIOLOGY : PAPER - I</b>	
Subject Code No. : <b>3 7 0 2</b> Section No. (1, 2,.....) : <b>Nil</b>	

(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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First Year M. B. B. S. Examination

November / December - 2018

Physiology : Paper - II



Time : 2.30 Hours]

[Total Marks : 50

Instructions :

(1)

નીચે દર્શાવેલ પિલાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.  
Fillup strictly the details of signs on your answer book.

Name of the Examination :  
FIRST YEAR M. B. B. S.

Name of the Subject :  
PHYSIOLOGY : PAPER - II

Subject Code No. : 3 7 0 3 Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

(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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[Contd...

SECTION - II

- 4 Write notes on any 4 : 8
- (a) Corpus luteum
  - (b) Safe period
  - (c) Function of placenta
  - (d) Endometrial changes in proliferative phase of menstrual cycle
  - (e) Stages of Spermatogenesis
- 5 Short notes on any 3 : 12
- (a) Addison's disease
  - (b) Synthesis of Triiodothyronine
  - (c) Regulation of Growth hormone secretion
  - (d) Errors of refraction
- 6 Answer/Explain in 1-2 sentences : (any 5) 5
- (a) Normal sperm count in semen
  - (b) Define cryptorchidism
  - (c) Stereognosis
  - (d) Function of Pacinian corpuscles
  - (e) Normal body temperature
  - (f) What is Goiter ?





