



Date of issue : Centre :
Sup. Sign. : Seat No. :

M-4003-O
First Year M. B. B. S. Examination
July - 2015
Physiology : Paper - I

Time : 10 Minutes]

[Total Marks : 10

Instructions :

(1)

नीचे दशांशिक निशानीवाणी विगतो उत्तरवली पर अवश्य दजवली.
Fillup strictly the details of signs on your answer book.

Name of the Examination :

Name of the Subject :

Subject Code No. : - Section No. (1, 2,.....):

Seat No. :

Student's Signature

- (2) Mark the most appropriate choice with black ball pen for the following MCQs in separate OMR sheet provided.
- (3) Each correct entry credits one mark. No deduction of marks for incorrect entry.

5 MCQs :

- (1) Which of the following is most potent regulator of respiration ?
- (a) H^+
(b) PCO_2
(c) PO_2
(d) None of the above

- (2) Which is the most important cause of hyperventilation during exercise ?
- (a) Oscillations in PCO_2
 - (b) Oscillation in PO_2
 - (c) Proprioceptive influence
 - (d) Acidic pH
- (3) Majority of B12 and Intrinsic factor complex is absorbed from -
- (a) Stomach
 - (b) Duodenum
 - (c) Ilium
 - (d) Large intestine
- (4) Cardiac muscle are not fatiguable because of -
- (a) Specialized conductive tissue
 - (b) Intercalated disc
 - (c) Long refractory period
 - (d) Atrio ventricular delay
- (5) Angiotensin II increase blood volume by -
- (a) Increase absorption of Na^+ from proximal tubule
 - (b) Increase secretion of Aldosterone which in turn increase Na^+ reabsorption
 - (c) Increase ADH, which in turn increase water reabsorption
 - (d) All of the above
- (6) In aVR lead "a" stands for -
- (a) active
 - (b) altered
 - (c) augmented
 - (d) accelerated

- (7) Antibody to ABO system is -
- (a) IgG type
 - (b) IgD type
 - (c) IgM type
 - (d) IgE type
- (8) After rapidly coming out from deep water diving person may suffer from -
- (a) Dysbarism
 - (b) Bends
 - (c) Caisson's disease
 - (d) All of the above are correct
- (9) Which of the following clearance test gives idea about renal blood flow -
- (a) Creatinine clearance
 - (b) Standard urea clearance
 - (c) Maximum urea clearance
 - (d) PAH clearance
- (10) Surfactant :
- (a) Prevent lung collapse
 - (b) Reduce work of breathing
 - (c) Increases lung compliance
 - (d) All of the above
-



Date of issue : Centre :
Sup. Sign. : Seat No. :

M-4004-O
First Year M. B. B. S. Examination
July - 2015
Physiology : Paper - II

Time : 10 Minutes]

[Total Marks : 10

Instructions :

(1)

नीचे दशांशविल निशांनीवाणी विगतो उत्तरवती पर अवश्य वपनी.
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. : 4 0 0 4 - 0 Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

- (2) Mark the most appropriate choice with black ball pen for the following MCQs in separate OMR sheet provided.
- (3) Each correct entry credits one mark. No deduction of marks for incorrect entry.

5 MCQs :

- (1) Which of the following is slowly adapting cutaneous receptor ?
- (a) Pacinian corpuscle
(b) Meissener's corpuscle
(c) Hair follicle plexus
(d) Merkel's Disc

- (2) Attenuation reflex is stimulated :
- (a) During walking
 - (b) During talking
 - (c) By loud sound
 - (d) All of the above
- (3) Which of the following sensations are not carried by Spinothalamic tract ?
- (a) Pain and temperature
 - (b) Touch and pressure
 - (c) Itch and tickle
 - (d) None of the above
- (4) Which of the following is proprioceptor ?
- (a) Nociceptors
 - (b) Osmoreceptors
 - (c) Merkel's Disc
 - (d) Golgi tendon organ
- (5) Which of the following is not a property of synapse ?
- (a) Inhibition
 - (b) Plasticity
 - (c) Adaptation
 - (d) Fatigue
- (6) Total Refractory power of eye during accommodation is :
- (a) 59 diopter
 - (b) 44 diopter
 - (c) 70 diopter
 - (d) 15 diopter

- (7) Autonomic nervous system is :
- (a) Initiator and modifier
 - (b) Initiator but not modifier
 - (c) Modifier but not initiator
 - (d) Neither initiator nor modifier
- (8) Blood brain barrier does not exist at :
- (a) Area postrema
 - (b) Organum vasculosum of lamina Terminalis
 - (c) Subfornical organs
 - (d) All of the above
- (9) Active product of rhodopsin breakdown is :
- (a) Lumirhodopsin
 - (b) Metarhodopsin II
 - (c) Iodopsin
 - (d) Scotopsin
- (10) Hormones secreted from endocrine pancreas :
- (a) Insulin and Glucagon
 - (b) Insulin, Glucagon and Somatomedin
 - (c) Insulin, Glucagon and Somatostatin
 - (d) Insulin, Glucagon, Somatostatin and pancreatic polypeptide



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M-4003
First Year M. B. B. S. Examination
July - 2015
Physiology : Paper - I

Time : 1 Hour & 50 Minutes]

[Total Marks : 40

Instructions : (1)

नीचे दशांशवले निशानांनी विगतो उत्तरवली पर अवश्य द्यावी.
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 - I

Seat No. :

Student's Signature

Subject Code No. : 4 0 0 3 Section No. (1, 2,.....) : 1&2

- (2) Answer precisely and draw diagrams wherever essential.
- (3) Figure to the right indicates the marks.
- (4) Answer separately section wise.

SECTION - I

- 1 Explain in brief : (ANY THREE) 6
 - (a) Importance of Sodium Potassium Pump.
 - (b) Definition and cause of Rigor Mortis.
 - (c) What is T tubule ? Write its importance.
 - (d) Smooth muscle types and their examples.
- 2 Write notes on : (ANY THREE) 15
 - (a) Surfactant.
 - (b) Chemical regulation of respiration.
 - (c) Juxta Glomerular Apparatus.
 - (d) Glomerular Filtration rate.

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[Contd...

9

SECTION - II

- 3 Define Blood Pressure and discuss mechanisms regulating blood pressure. **10**
- 4 Write short note on : **(ANY THREE)** **9**
- (a) Peristalsis – definition and mechanism
 - (b) Rh system of Blood group
 - (c) Mechanism of Gastric acid secretion
 - (d) Immunity : definition and classification.
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M-4004

First Year M. B. B. S. Examination

July - 2015

Physiology : Paper - II

Time : 1 Hour & 50 Minutes]

[Total Marks : 40

Instructions :

(1)

नीचे दशांशों में निम्नलिखित विषयों के उत्तरों पर अवश्य दृष्टि करें। Fill up strictly the details of signs on your answer book.	Seat No. : <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Name of the Examination : FIRST YEAR M. B. B. S.	Student's Signature
Name of the Subject : PHYSIOLOGY - PAPER - II	
Subject Code No. : 4 0 0 4 Section No. (1, 2,.....) : 1&2	

- (2) Answer precisely and draw diagrams wherever essential.
(3) Figure to the right indicates the marks.
(4) Answer separately section wise.

SECTION - 1

- 1 Explain in brief : (any three) 6
(a) Spinocerebellar tract.
(b) Functions of Muscle spindle.
(c) Enumerate hormones of hypothalamus.
(d) Effect of Sympathetic stimulation on Heart and Blood vessels.
- 2 Write notes on : (any three) 15
(a) Ovarian changes during menstrual cycle
(b) Menopause
(c) Hormonal regulation of blood calcium
(d) Dwarfism.

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[Contd.....

SECTION - 2

- 3 Discuss pain pathway and applied aspect. 10
- 4 Write short notes on : (any three) 9
- (a) Semicircular canals
 - (b) Myopia
 - (c) Hearing pathway
 - (d) Accommodation reflex.



Date of issue : Centre :
Sup. Sign. : Seat No. :

M-4003-O-N
First Year M. B. B. S. Examination
December - 2015
Physiology : Paper - I

Time : 10 Minutes]

[Total Marks : 10

Instructions :

(1)

नीचे दशांशक लिखें - रिशानीवाणी विषयों के उत्तरवही पर अवश्य लिखें।
Fill up 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 - I

Subject Code No. : 4 0 0 3 - 0 Section No. (1, 2,.....): Nil

Seat No. :

Student's Signature

- (2) Mark the most appropriate choice with black ball pen for the following MCQs in separate OMR sheet provided.
- (3) Each correct entry credits one mark. No deduction of marks for incorrect entry.

5. MCQs

1. Stroke Volume = 60ml and End diastolic Volume =120ml, Ejection

Fraction is:

- a) 0.4
- b) 0.5
- c) 0.6
- d) 0.7

2. "T" wave in electrocardiogram represents ventricular:

- a) Repolarisation
- b) Depolarisation
- c) Systole
- d) Diastole

3. Which of the following organelles is called the 'suicide bag' of the cell?

- a) Lysosome
- b) Peroxisome
- c) Ribosome
- d) Centrosome

4. Which of the following is an enzyme secreted into the gastrointestinal tract?

- a) Gastrin
- b) Pepsin
- c) Secretin
- d) Cholecystokinin

5. Expiratory Reserve Volume and Residual Volume when added together give:
- a) Functional Residual Capacity
 - b) Inspiratory capacity
 - c) Total Lung Capacity
 - d) Vital capacity
6. Juxta Glomerular Apparatus (JGA) comprises of all of the following EXCEPT:
- a) Juxta Glomerular cells
 - b) Macula Densa cells
 - c) Lacis cells
 - d) Principal cells
7. Rh-negative mother carrying Rh-positive foetus, first-born child is usually normal because:
- a) Mother does not have agglutinin-D
 - b) Anti-Rh titre developed is not sufficiently high to destroy the foetal RBCs
 - c) Foetal Agglutinin-D cannot cross the placenta
 - d) Anti-Rh titre developed in the mother's plasma cannot cross the placenta to destroy the foetal RBCs
8. Cholagogues are substances which cause:
- a) Contraction of Gall Bladder
 - b) Increased biliary secretion from Liver
 - c) Neutralization of acid from the stomach
 - d) Solubility of fats in micelles

9. What provides most of the energy that is used to maintain a normal resting Membrane Potential inside the nerve?

- a) Chloride pump
- b) Sodium-Potassium Pump
- c) Calcium pump
- d) Diffusion of Chloride ions

10. All of the following help in maturation of RBCs EXCEPT:

- a) Castle's intrinsic factor
- b) Iron
- c) Vitamin B₁₂
- d) Folic acid



Date of issue : Centre :
Sup. Sign. : Seat No. :

M-4004-O-N
First M. B. B. S. Examination
December - 2015
Physiology : Paper - II

Time : 10 Minutes]

[Total Marks : 10

Instructions :

(1)

नीचे दशांश में निशानीवाणी विज्ञानो उत्तरवही पर अवश्य लिखनी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
First M. B. B. S.

Name of the Subject :
Physiology : Paper - II

Subject Code No. : 4 0 0 4 - 0 Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

- (2) Mark the most appropriate choice with black ball pen for the following MCQs in separate OMR sheet provided.
- (3) Each correct entry credits one mark. No deduction of marks for incorrect entry.

5. MCQs

1. Which of the following hormones reduces blood sugar level?

- a) Growth hormone
b) Insulin
c) Glucocorticoids
d) Glucagon

2. Which of the following cannot be summated?
- a) Action potential
 - b) Excitatory post-synaptic potential
 - c) Inhibitory post-synaptic potential
 - d) Receptor potential
3. Which of the following is NOT a feature of Hypothyroidism?
- a) Hypertension
 - b) Myxoedema
 - c) Cold intolerance
 - d) Mental sluggishness
4. Purkinje cell is a:
- a) Output cell
 - b) Input cell
 - c) Interneuron
 - d) Connector neuron
5. Which of the following is not released from anterior pituitary gland?
- a) Growth Hormone
 - b) Oxytocin
 - c) Prolactin
 - d) Thyroid stimulating hormone
6. Bilateral destruction of primary auditory cortex causes:
- a) Difficulty in interpretation of sound
 - b) Difficulty in hearing
 - c) Complete loss of hearing
 - d) Vertigo

7. Accomodation reflex includes:

- a) Relaxation of ciliary muscles
- b) Dilation of pupil
- c) Constriction of pupil
- d) Diplopia

8. Time of ovulation is indicated by:

- a) Recording of blood levels of estrogen
- b) Recording of basal body temperature (BBT)
- c) Recording of blood level of progesterone
- d) Recording of level of FSH in blood

9. In testes the cells that secrete testosterone are:

- a) Germinal epithelium
- b) Leydig cells
- c) Sertoli cells
- d) Sperm cells

10. Motor aphasia results from damage to:

- a) Broca's area
- b) Angular gyrus area
- c) Superior temporal cortex
- d) Prefrontal area



M-4004-N

First M. B. B. S. Examination

December - 2015

Physiology : Paper - II

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

[Total Marks : 40

Instruction :

नीचे दशांश देव - निशाणीवाणी विगतो उत्तरवदी पर अवश्य बाधवी.
Fillup strictly the details of signs on your answer book.

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

Name of the Subject :
PHYSIOLOGY : PAPER - 2

Subject Code No. : 4 0 0 4 Section No. (1, 2,.....) : 1&2

Seat No. :

Student's Signature

SECTION - 1

- 1 Explain in brief: (any three) (3x2=6)
- (a) Enumerate the secondary sexual characteristics in males
 - (b) Brown-sequard syndrome
 - (c) Differentiate between diabetes mellitus and diabetes insipidus
 - (d) List two differences between REM and NREM sleep
- 2 Write notes on: (any three) (3x5=15)
- (a) Non-surgical methods of female contraception
 - (b) Cushing disease and Cushing syndrome (2 ½+2 ½marks)
 - (c) Physiological actions of Growth Hormone
 - (d) Physiological changes during pregnancy

SECTION – 2

3. Describe the connections and functions of Hypothalamus (3+7marks) (10)
4. Write short notes on: (any three) (3x3=9)
- (a) Classification of sensory receptors
 - (b) Errors of refraction
 - (c) Parts and functions of middle ear (1+2marks)
 - (d) Types and function of photoreceptors in eye (1 ½+1 ½marks)