

April-2001

[KD 125]

Sub. Code : 2022

M.D. DEGREE EXAMINATION.

Branch V — Physiology

(New/Revised Regulations)

Paper III — NERVOUS SYSTEM AND SPECIAL
SENSES

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

1. What are the Nuclei connections and functions of Basal Ganglia? Add a note on paralysis Agitans. (25)
 2. Describe the mechanism of Hearing and discuss about theories of Hearing. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Photo-Chemistry of Vision.
 - (b) EEG and its uses.
 - (c) Neural control of sex behaviour.
 - (d) Functions of ventro-medial hypothalamus.
 - (e) Functions of smell and its disorders.
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November-2001

[KE 125]

Sub. Code : 2022

M.D. DEGREE EXAMINATION.

(New/Revised Regulations)

Branch V — Physiology

Paper III — NERVOUS SYSTEM AND SPECIAL
SENSES

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

1. Describe the plan of arrangement of Autonomic Nervous System. What are the functions of the Sympathetic Nervous System. How are they explained. (25)
2. Describe the auditory pathway. Discuss the functions of the Inferior Colliculus and the Auditory Cortex. (25)
3. Write briefly on : (5 × 10 = 50)
 - (a) Alpha-Gamma Linkage.
 - (b) Rapid-Eye Movement (REM) Sleep.
 - (c) Retinal receptor potentials.
 - (d) Feeding and Satiety.
 - (e) Aqueous humour.

March-2002

[KG 125]

Sub. Code : 2022

M.D. DEGREE EXAMINATION.

(New/Revised Regulations)

Branch V — Physiology

Paper III — NERVOUS SYSTEM AND
SPECIAL SENSES

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

1. Describe the regulation of muscle tone and its disturbances in various neurological disorders. (25)
 2. Describe the various neural mechanisms responsible for perception of colour vision. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Babinski's sign.
 - (b) Impedance matching in middle ear.
 - (c) Brain's opiate system.
 - (d) Wernick's area.
 - (e) Axon reflex.
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September-2002

[KH 125]

Sub. Code : 2022

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch V — Physiology

Paper III — NERVOUS SYSTEM AND SPECIAL
SENSES

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Describe basic circuitry, connections and functional organization of cerebellum. (25)
 2. Write a brief essay on production and perception of pain. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Organ of corti
 - (b) Inverse stretch reflex
 - (c) Argyl Robertson's pupil
 - (d) Rapid eye movement sleep
 - (e) Muscle spindle.
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April-2003

[KI 125]

Sub. Code : 2022

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch V — Physiology

Paper III — NERVOUS SYSTEM AND SPECIAL
SENSES

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

1. Describe the mechanisms involved in arousal and wakefulness. (25)
 2. Discuss the modern views in the mechanism of color vision and describe the pathophysiology of color blindness. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Speech audiometry
 - (b) Macula Lutea
 - (c) Wernicke's area
 - (d) Sham rage
 - (e) Intraocular pressure.
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[KJ 125]

Sub. Code : 2022

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch V — Physiology

Paper III — NERVOUS SYSTEM AND SPECIAL SENSES

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

M.C.Q. must be answered **SEPARATELY** on the answer sheet provided as per the instructions on the first page.

Answer **ALL** questions.

Draw suitable diagrams wherever necessary.

1. Discuss the connections and functions of Basal ganglia. Discuss its clinical disorders and physiological basis of treatment. (15)

2. Discuss the mechanism of hearing in detail. Add a note on tests for hearing and auditory defects. (15)

3. Write notes on : (10 × 5 = 50)

- (a) Cerebellar function tests
- (b) Referred pain
- (c) Prostaglandins
- (d) Errors of Refraction and their correction
- (e) Visual pathway and its defects
- (f) Electroretinogram
- (g) Impedence matching
- (h) Colour vision and its defects
- (i) Taste pathway and its disorders
- (j) Papez circuits and their clinical significance.

[KL 125]

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II. Write short answers on : (10 × 5 = 50)

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch V — Physiology

Paper III — NERVOUS SYSTEM AND SPECIAL SENSES

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes Theory : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Draw a diagram of the cerebral cortex and mark therein the areas concerned with voluntary movement. Describe motor homunculus. (15)

(2) Draw a diagram to show the pathway involved in the near response. Explain the purpose of these changes. (15)

- (a) Endogenous analgesia system
- (b) Referred pain
- (c) Effects of sectioning a series of dorsal nerve roots
- (d) Audiogram
- (e) Axonotmesis
- (f) Blood brain barrier
- (g) Give the basis of Spinal shock
- (h) Distance perception by the eye
- (i) Auditory pitch perception
- (j) Tactile localization.