

EXAM SUBJECTS- SECOND YEAR, SECOND SEMESTER

I.

1. Spinal cord-external features
2. Relations of the spinal cord segments to the vertebrae and relations of the spinal nerve roots to the vertebrae
3. Anterior column (funiculus) of spinal cord
4. Lateral column (funiculus) of spinal cord
5. Posterior column (funiculus) of spinal cord
6. Spinal cord nuclei (grey matter nuclei in spinal cord)
7. Rexed laminae of the spinal cord grey matter
8. Blood supply of the spinal cord
9. Dorsal root of the spinal nerve
10. Classification of nerve fibres
11. Receptor classification
12. Non-capsulated exteroceptors
13. Encapsulated exteroceptors
14. Proprioceptors
15. Ascending pathways-classification, characteristics
16. Crude (non-discriminative) touch sensibility
17. Pain and temperature sensibility pathway
18. Discriminative touch sensibility
19. Pain
20. Kinesthetic sensibility pathway
21. Moment control proprioceptive sensibility pathway
22. Interoceptive sensibility pathway
23. Exteroceptive and proprioceptive sensibilities pathways of the head
24. Propriospinal fascicles of spinal cord
25. Reticular formation of the brainstem-location, general features
26. Central (medial) reticular nuclei-ascending fibres
27. Ascending activating reticular system
28. Sleep
29. Central (medial) reticular nuclei-descending fibres
30. Lateral and paramedian reticular nuclei
31. Median reticular nuclei
32. Medulla oblongata-external features
33. Pons, midbrain-external features
34. The fourth ventricle
35. Brainstem nuclei classification
36. Equivalent nuclei of brainstem
37. Inferior olivary complex of medulla oblongata
38. Gracile and cuneate nuclei
39. Sensory trigeminal nerve nuclei
40. Red nucleus
41. Substantia nigra
42. Superior colliculus
43. Inferior colliculus
44. Brainstem blood supply
45. Vegetative (parasympathetic) nuclei of brainstem
46. Somatomotor nuclei of brainstem

47. Branchiomotor nuclei of brainstem
48. Medial lemniscus
49. Association fibres of the brainstem
50. Spinal meninges

II

1. Cerebellum-external features, location, relations
2. Cerebellar lobes and lobules
3. Archicerebellum
4. Paleocerebellum
5. Neocerebellum
6. Cerebellar cortex
7. Cerebellar types of afferent fibres
8. Cerebellar nuclei
9. Afferent fibres of the cerebellum
10. Efferent fibres of the cerebellum
11. Blood supply of the cerebellum
12. Functional involvement of cerebellum
13. The third ventricle
14. Thalamus-external features, basic organization, nuclei
15. Thalamus- anterior nuclei
16. Thalamus- medial nuclei
17. Thalamus- midline nuclei and intralaminar nuclei
18. Thalamus- lateral nuclei
19. Thalamus- ventral nuclei
20. Thalamus- reticular nucleus and pedicles
21. Functional involvement of thalamus
22. Hypothalamus-external features
23. Medial hypothalamic area
24. Lateral hypothalamic area
25. Hypothalamic afferent fibres
26. Tubero-infundibular tract and hypothalamo-hypophyseal portal system
27. Supraoptico-hypophyseal tract
28. Functional involvement of hypothalamus
29. Subthalamus
30. Epithalamus
31. Metathalamus
32. Olfactive system
33. Amygdaloid complex
34. Hippocampus-description
35. Hippocampus- connections

III.

1. Internal white capsule
2. Neostriatum
3. Paleostriatum
4. Frontal lobe-external features, areas
5. Occipital lobe-external features, areas
6. Temporal lobe-external features, areas
7. Parietal lobe-external features, areas

8. Cerebral hemispheres- external features
9. Cerebral cortex-cellular types
10. Cyto-, myelo-, angio- architecture of the cerebral cortex
11. Homotypical cortex
12. Heterotypical cortex
13. Somatosensory cortex
14. Visual areas
15. Taste area, vestibular area
16. Hemispheric dominance
17. Taste pathway
18. Vestibular receptor system
19. Motor areas
20. Corticospinal tracts
21. Extrapyramidal areas and pathways (tracts)
22. Vestibular pathway
23. Vestibular nuclei-location, description, afferents, efferents
24. Acoustic receptor system
25. Acoustic pathway
26. Cochlear nuclei
27. External and middle ear
28. Reflex acoustic pathway
29. Role of the visual system
30. Retina- layers, description, pigment cell
31. Rod cells
32. Cone cells
33. Bipolar, multipolar and association neurons of the retina
34. Visual fields, corresponding areas
35. Optic nerve, optic chiasma, optic tract
36. Lateral geniculate body
37. Visual area
38. Optic reflex pathway
39. Perturbances of visual sensitivity
40. Extrinsic muscles of the eyeball
41. Choroid, sclera
42. Lacrimal apparatus
43. Visual pathway
44. Cerebral arterial circle of Willis
45. Anterior cerebral artery
46. Middle cerebral artery
47. Posterior cerebral artery
48. Vertebrobasilar system
49. Cerebral dura mater
50. Lateral ventricle
51. Corpus callosum

