

NEUROSURGERY

PAPER-I

Time: 3 hours
Max. Marks:100

NS 2/J/19/21/I

Important Instructions:

- *Attempt all questions in order.*
- *Each question carries 10 marks.*
- *Read the question carefully and answer to the point neatly and legibly.*
- *Do not leave any blank pages between two answers.*
- *Indicate the question number correctly for the answer in the margin space.*
- *Answer all the parts of a single question together.*
- *Start the answer to a question on a fresh page or leave adequate space between two answers.*
- *Draw table/diagrams/flowcharts wherever appropriate.*

Write short notes on:

1. Intra-operative monitoring: 3+3+4
 - a) Somato-sensory evoked potentials.
 - b) Motor evoked potentials.
 - c) Brain-stem auditory evoked potentials.
2. Intra-cranial pressure: 3+3+4
 - a) Monro-Kellie doctrine.
 - b) Volume-Pressure Relationship.
 - c) Intra-cranial pressure monitoring.
3. Diffuse axonal injury: 3+3+4
 - a) Pathophysiology
 - b) Diagnostic studies
 - c) Management
4. Fat embolism: 3+3+4
 - a) Pathophysiology.
 - b) Diagnostic studies.
 - c) Management.
5. Hyponatremia: 4+3+3
 - a) Etiopathogenesis.
 - b) Cerebral salt wasting syndrome.
 - c) SIADH.
6. Whiplash injury: 3+3+4
 - a) Mechanism and pathology.
 - b) Clinical profile.
 - c) Imaging and management.

P.T.O.

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| 7. | Post traumatic epilepsy: | 3+4+3 |
| | a) Classification. | |
| | b) Management. | |
| | c) Prognosis. | |
| 8. | Critical care: | |
| | a) ICP monitoring. | 5+5 |
| | b) Ventilation parameters. | |
| 9. | Tumours of the spinal cord: | 3+4+3 |
| | a) Pathophysiology of cord compression. | |
| | b) Differences between extra and intramedullary tumours. | |
| | c) Functional scores in spinal cord disease | |
| 10. | Regarding cerebral edema: | 3+3+4 |
| | a) Blood-brain barrier. | |
| | b) Aquaporins in the brain. | |
| | c) Brain tumours and edema. | |
