

NEURO SURGERY (PART-II/FINAL)
PAPER-III

Time: 3 hours
Max. Marks:100

NS2/J/20/21/III

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. Diffusion weighted MRI in Neurosurgery: 4+3+3
 - a) Principles and applications
 - b) Role in brain tumour characterization
 - c) Clinical applications in paediatric neurosurgery
2. Spinal fusion techniques: 6+4
 - a) Techniques of minimally invasive lumbar spine fusion.
 - b) Current concepts in dynamic stabilization techniques.
3. a) Indications and mechanism of Deep brain stimulation (DBS). 6+4
b) Advantages of DBS.
4. Role of stem cells in Neurosurgery: 4+3+3
 - a) Principles.
 - b) Clinical applications.
 - c) Ethical considerations.
5. Describe Scientific contributions to Neurosurgery: 4+3+3
 - a) Victor Horsley.
 - b) Walter Dandy.
 - c) Cloward.
6. Tuberculosis of spine: 3+3+4
 - a) Pathophysiology.
 - b) Current techniques in diagnosis.
 - c) Current concepts in management including newer drugs.
7. Endonasal endoscopic surgery: 3+4+3
 - a) Indications and contraindications.
 - b) Complications.
 - c) Hadad-Bassagasteguy flap.

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| 8. | a) Management options in intracranial aneurysm.
b) Recent advances in management of giant intracranial aneurysm. | 5+5 |
| 9. | Recurrent GBM:
a) Diagnosis.
b) Indications for surgery
c) Timozolamide | 3+3+4 |
| 10. | Neurosurgical operating microscope:
a) Basic requirements.
b) Advanced functions.
c) Future developments anticipated. | 4+3+3 |
