

NEUROSURGERY (PART-II/FINAL)

PAPER – III

NS/J/16/21/III

Time : 3 hours

Max. Marks : 100

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. Pain pathways: 4+4+2
 - a) How is sensation carried from big toe to thalamus?
 - b) Pain regulation mechanism
 - c) Enumerate surgical methods to control pain.
2. Factors affecting surgical site infection in Neurosurgery and methods to minimize it prophylactically. 5+5
3. Role of gene therapy in glioma and, its limitations & success. 5+5
4. Factors affecting progression free survival in glioma. 10
5. Role of Gamma Knife in: 3+4+3
 - a) Pituitary adenoma
 - b) Cerebral AVM
 - c) Functional Neurosurgery
6. a) Enumerate various spine stabilization implants for cervical spine surgery; 4+4+2
 - b) Its selection criteria &
 - c) Limitations of implants.
7. a) Outline various treatment options for AVM of brain; 3+4+3
 - b) Classification of embolising materials; &
 - c) Advantages and disadvantages of each.
8. Indications of brain vascular bypass surgery and techniques related to it with suitable illustration. 5+5
9. Role of microdialysis in neurosurgical illness, its major benefits and limitation. 4+3+3
10. A 45 years old patient had decompressive craniectomy for MCA infarction. 5+5
 - a) When will one go for cranioplasty
 - b) Various options for cranioplasty.
