

SURGICAL ONCOLOGY
PAPER-I

Time: 3 hours
Max. Marks:100

SURGONCO/J/20/47/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. a) Briefly explain microbiota. 5+(3+2)
b) Enumerate the role of microbiota on.
 - i. Etiology of cancers.
 - ii. Chemotherapy and immunotherapy.
2. What is mismatch repair? What are the genes involved in MMR deficiency? How does mismatch repair deficiency contribute to genomic instability? Outline the clinical application of MMR deficiency. 2+2+3+3
3. What is meant by immune surveillance? Outline the mechanism of action of checkpoint inhibitors and their clinical application. 2+4+4
4. a) Discuss the current controversies in breast cancer screening. 5+5
b) Role of MRI in the screening and follow up of breast cancer.
5. a) Role of indocyanine green in oncology. 5+5
b) Role of minimally invasive surgery in gastric cancer.
6. a) Types and mechanism of cancer angiogenesis. 5+5
b) Epithelial to mesenchymal transition.
7. a) Oncological significance of Programmed Death-Ligand 1(PDL1) protein. 5+5
b) Discuss the role of PDL 1 blockage in three malignancies, with evidence.
8. a) Anastomotic complications in esophageal surgery. 5+5
b) Prevention and management of thoracic duct injury on esophageal surgery.
9. a) What are the various targeted mutation analysis methods used in oncology? 5+3+2
b) What is Sangers Sequencing?
c) FISH.
10. Define Apoptosis. Outline the mechanism of apoptosis and its clinical application. 2+(4+4)
