SURGICAL ONCOLOGY
PAPER – I

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. Hallmarks of cancer:
   a) Enumerate all the hallmarks of cancer. 4
   b) Various constituent cell types of tumor microenvironment. 4
   c) Therapeutic Targeting of hallmarks of cancer. 2

2. Molecular methods in cancer:
   a) Enumerate different molecular diagnostic technologies in Oncology. 5
   b) Fluorescence in situ hybridization (FISH). 5

3. a) Oncogenic Viruses. 3
    b) Human Papilloma Virus – Mechanism of oncogenesis, Tumor and Viral types and prevention. 2+2+3

4. a) BRCA related cancers. 5
    b) Risk reducing surgeries in BRCA mutants. 5

5. Aromatase Inhibitors:
   a) Classification & Mechanism of action 2+2
   b) Indications 2
   c) Toxicity and its prevention 2+2

6. Concurrent Chemoradiation:
   a) Rationale. 2
   b) Radiation Sensitizers. 4
   c) Current therapeutic applications. 4

7. Cervical Cancer Screening:
   a) Methods. 2
   b) Bethesda System. 3
   c) Atypical Squamous Cells. 2
   d) Screening Guidelines (ACS). 3

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<th>8.</th>
<th>Assessment of clinical response:</th>
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<tr>
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<td>a) Clinical Tools</td>
<td>2</td>
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<td>b) Imaging and Biomarkers</td>
<td>3+3</td>
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<td>c) Circulating Tumor Cells</td>
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<td>a) Classification of Epidemiological Study designs.</td>
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<td>b) Meta analysis.</td>
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<td>c) Randomized Phase –III studies with examples as applied to surgical oncology.</td>
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<td>a) Indications.</td>
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<td>b) Components of counseling session.</td>
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<td>c) Issues in cancer genetic counseling.</td>
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