

R09

Code: 9A23707

B.Tech IV Year I Semester (R09) Supplementary Examinations, May 2013

CANCER BIOLOGY

(Biotechnology)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions
All questions carry equal marks

1. Describe the phases of cell cycle with the events that occur in each phase. Explain the checkpoints in the cell cycle.
2. What are tumour suppressor genes (TSG)? Explain the mechanism of action of TSG in the regulation of cancer progression at least with two examples.
3. Define Pro, proximate and ultimate carcinogens. Describe the mechanisms of chemical-induced carcinogenesis.
4. What are ionizing radiations? Write the units of radiological quantities. Mention briefly how radiations can cause cancer.
5. Describe the mechanism of virus-induced carcinogenesis with a suitable example.
6. Write short notes on:
 - (a) MMPs.
 - (b) Tumour invasion.
7. Describe various imaging techniques in cancer detection with their principles.
8. Explain various classes of chemotherapeutic drugs used in cancer therapy.
