

## **Biology of Cancer**

1. Define neoplasia or cancer.
2. Cite the method for naming and classifying tumors; provide examples.
3. Identify and describe cell surface changes that occur in cancerous cells: glycolipids and glycoproteins, altered membranes, proteases, and cellular connections.
4. Describe the significance of the following intercellular changes that occur in cancer cells: cytoskeleton, density-dependent inhibition of growth, autocrine stimulation, nuclear, and cellular protein changes.
5. Describe the advantages and limitations of tumor cell markers; cite marker examples that suggest the existence of cancer.
6. Define the role the following play in the development of neoplasms or cancer: environmental agents, retrovirus insertion, oncogenes, tumor-suppressor gene inactivation, and poor body defense mechanisms.
7. Describe the initiation-promotion-progression theory of carcinogenesis.
8. Characterize common carcinogens as chemical or physical.
9. Identify and describe the pathogenesis of oncogenic viruses; cite examples.
10. Identify and describe the pathogenesis of the bacterium *H. pylori*.
11. Describe the tumor surveillance theory as a defense against cancer; identify tumor antigens.
12. Indicate the limitations of immune surveillance as a defense against cancer.