

Module 2 Exam-

Question 1

3 / 3 pts

True/False:

Blood tests for tumor markers are the single best screening tool for cancer. Why or why not?

Your Answer:

False. Tumor markers, which can be used for establishing prognosis, monitoring treatment and detecting recurrent disease, have limitations. Under benign situations, tumor markers can still be elevated. Whereas in early stages of malignancy, not elevated. They have a lack of specificity and are then limited in their ability to screen or diagnose accurately.

False, they are elevated in benign conditions, most are not elevated in the early stages of malignancy.

Question 2

3 / 3 pts

Tissue biopsy is of critical importance in what role?

Your Answer:

Play a critical role in histologic and cytologic studies for diagnosis of cancers.

Diagnosing the correct cancer and histology.

Question 3

4 / 4 pts

1. List two signs or symptoms a patient may present with that might indicate a cancer diagnosis:

2. What are two side effects commonly experienced by cancer patients?

Your Answer:

1) Bleeding and/or weight loss

2) Anorexia, hair loss

1. Bleeding; sore that doesn't heal; fluid in the pleural, pericardial, or peritoneal spaces; chest pain, shortness of breath, cough, abdominal discomfort or swelling. Other possible answers can include a mass or lump, pain (need to be specific), fatigue, fevers, weight loss

2. Weight loss, wasting of body fat and muscle tissue, weakness, anorexia, and anemia, fatigue, sleep disturbances

Question 4

10 / 10 pts

Explain the TNM system:

Your Answer:

TNM system is a detailed staging system, created by AJCC, is used by cancer facilities. It classifies cancers into stages using 3 tumor components; Tumor, Nodes, Metastasis. T is size and spread of the primary tumor. N is how involved the lymph nodes. M is the extent of metastatic involvement.

Classification:

Tx, T0, Tis, T1-4

Nx, N0, N1-3

Mx, M0, M1

T is the size and local spread of the primary tumor.

N is the involvement of the regional lymph nodes.

M is the extent of the metastatic involvement.

Question 5

10 / 10 pts

1. When would surgery be appropriate in the treatment of cancer?
2. Most chemotherapeutic drugs cause pancytopenia due to bone marrow suppression. What are the 3 possible adverse outcomes of this?

Your Answer:

1. Surgery can be used if the tumor is solid and small with well-defined margins. Also can be used to treat oncologic emergencies and be used as prophylactic measures.

2. 3 possible adverse outcomes are neutropenia, anemia, thrombocytopenia.

1. Surgery is often the first treatment for solid tumors. If the tumor is small with well-defined margins, it can be removed completely. It is also used for oncologic emergencies and prophylactic surgery in high risk patients.

2.

Neutropenia- risk for infections

Anemia- causing fatigue

Thrombocytopenia- risk for bleeding

Question 6

2.5 / 2.5 pts

True/False:

Cell proliferation is the process in which proliferating cells become more specialized cell types.

True

Correct!

False

False, cell differentiation

Question 7

2.5 / 2.5 pts

True/False:

Cell differentiation is the process of increasing cell numbers by mitotic cell division.

True

Correct!

False

False, cell proliferation

Question 8

2.5 / 2.5 pts

What are two important properties that stem cells possess?

Your Answer:

Stem cells possess self-renewal and potency.

Self renewal means that they can undergo mitotic divisions while maintaining undifferentiated state.

Potency is the differentiation potential of stem cells.

Potency and self-renewal

Question 9

0 / 2.5 pts

Which of the following are most likely to have arisen from an adult stem cell?

You Answered



Muscle



Bone

Correct Answer



Epithelial



Neural

Question 10

4 / 4 pts

What is angiogenesis? Why do tumors need it?

Your Answer:

Angiogenesis is the development of new blood vessels within the tumor. In order to continue growing, it must establish blood vessels and growth factors.

development of new blood vessels within the tumor. They need it to continue to grow.

Question 11

3 / 3 pts

What are normal genes called that become cancer-causing if mutated?

Your Answer:

Proto-oncogenes and Tumor suppressor genes

protooncogenes

Question 12

1 / 3 pts

What is a tumor suppressor gene? Give one example.

Your Answer:

It is a gene that codes for a protein that inhibits cell growth and signals apoptosis. An example is p53.

Tumor suppressor genes are associated with gene underactivity. These genes slow down cell division, repair DNA mistakes, or tell cells when to die. BRCA1 or 2, TP53

Question 13

10 / 10 pts

Determine if the tumor is **benign** or **malignant** based on the nomenclature:

Papilloma

Lipoma

Leiomyosarcoma

Hemangioma

Adenocarcinoma

Neuroblastoma

Adenoma

Melanoma