

Molecular Medicine WAPT

Here are a couple of examples of questions:

1. With respect to the chemical causes of cancer:

- a. Mutations can be completely avoided by controlling the environment and exposure to mutagens
- b. Some carcinogens may be ingested as harmless chemicals but then metabolised into mutagens by the cytochrome P450 system
- c. Tumour promoters are potent direct causes of mutations
- d. Tumour initiators tend to cause cell proliferation
- e. All chemical carcinogens can easily be identified by epidemiological studies.

Correct: b, Incorrect: a, c, d, e

2. Functions of antibodies include:

- a. Activating the alternate pathway of complement
- b. Recognising antigen via their constant regions
- c. Neutralising toxins by binding and preventing their uptake by cells
- d. Opsonising viruses so that they can be phagocytosed by macrophages
- e. Activating CD4 T cells to release cytokines

Correct c, d Incorrect: a, b, e

3. Gram-positive cell walls:

- a. Contain more peptidoglycan than Gram-negative cell walls
- b. Are limited exteriorly by an outer membrane
- c. Stain dark-blue to purple with the Gram stain
- d. Are susceptible to lysozyme
- e. May be covered by a polysaccharide capsule

Correct: a, c, d Incorrect: b, e