

Unit 14 - Week 12 :

Course outline

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Lecture 57 : Cancer and Chemotherapy

Lecture 58 : Ant-cancer drugs (contd)

Lecture 59 : Aromatase inhibition and Anti-ulcer drugs

Lecture 60 : Cholesterol lowering agents

Lecture 61 : Cholesterol Biosynthesis

Lecture 62 : Pharmacokinetics and pharmacodynamics

Lecture 63 : QSAR principles

Quiz : Assignment 12

Feedback for Week 12

DOWNLOAD VIDEOS

Assignment Solution

Text Transcripts

Live Session

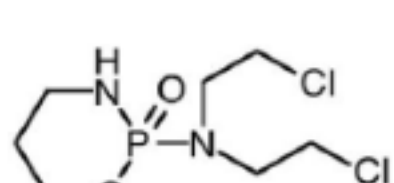
Assignment 12

The due date for submitting this assignment has passed.
 As per our records you have not submitted this assignment.

Due on 2019-10-23, 23:59 IST.

1) Cyclophosphamide is commonly used in anticancer therapy.

1 point



Which of the following statements is **INCORRECT** about its mechanism of action?

- It is by itself a bis-alkylating agent
- It acts as a prodrug
- It needs oxidative activation to show bis-alkylation activity
- The structure is metabolised to release acrolein.

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

2) What is the general term used to indicate the growth of new blood vessels?

1 point

- Biosynthesis
- Angiogenesis
- Apoptosis
- Metastasis

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

3) Which one of the following activities occurs following the stimulation of H₂ receptors?

1 point

- Vasodilation.
- Uterine contraction
- Bronchial smooth muscle contraction
- Enhanced secretion of hydrochloric acid in the stomach.

- a
 b
 c
 d

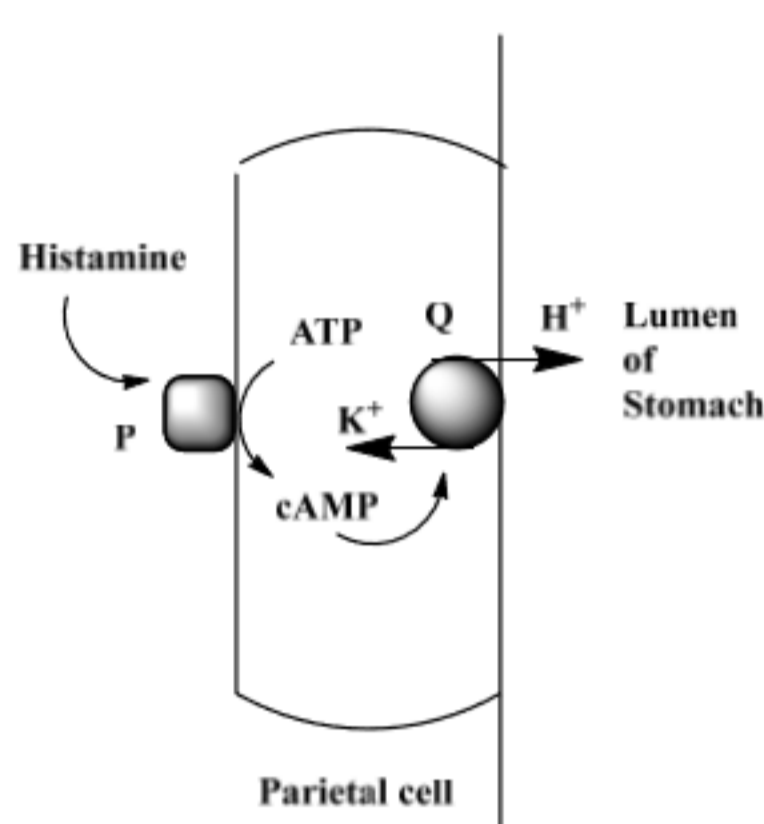
No, the answer is incorrect.

Score: 0

Accepted Answers:

d

The questions 4 and 5 are asked from the diagram as shown below:



4) Which one of the following statements about P is **TRUE**?

1 point

- P is an histamine H₁ receptor
- P is an histamine H₂ receptor
- Ranitidine is an agonist for the receptor P
- P is an enzyme catalysing the conversion of ATP to cAMP

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

5) Which one of the following statements about Q is **TRUE**?

1 point

- It is a H⁺/K⁺ ATPase pump
- It is activated by omeprazole
- Its activation lowers the acidity in the stomach
- It has an enzymatic activity like Carbonic Anhydrase

- a
 b
 c
 d

No, the answer is incorrect.

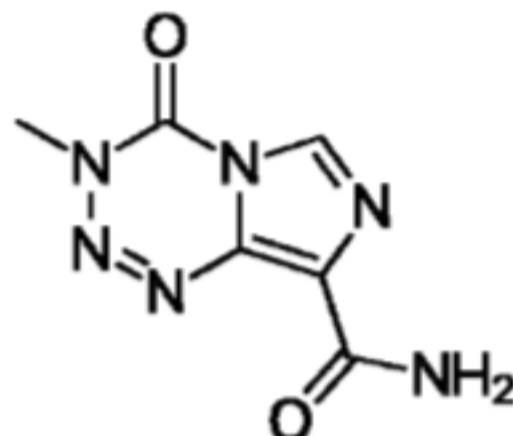
Score: 0

Accepted Answers:

a

6) The structure of anticancer drug temozolomide is shown below. It works

1 point



- as a bis-alkylating agent
- as a prodrug and generates CH₃N₂⁺ under physiological condition
- It does not cross blood brain barrier
- as a DNA-intercalator

- a
 b
 c
 d

No, the answer is incorrect.

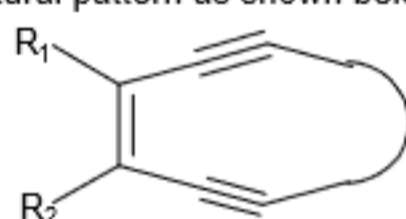
Score: 0

Accepted Answers:

b

7) Eneidyne with the structural pattern as shown below exerts their anticancer activity by

1 point



- DNA damage through alkylation pathway
- Mono-radical mediated DNA-single strand cleavage
- Diradical mediated DNA-double strand cleavage
- Activating enzyme mediated phosphor diester cleavage of DNA-strand

- a
 b
 c
 d

No, the answer is incorrect.

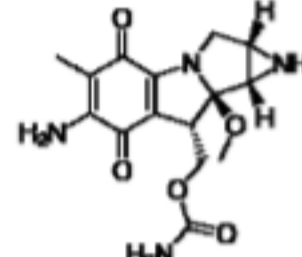
Score: 0

Accepted Answers:

c

8) The structure Mitomycin C as shown below is a

1 point



- prodrug and requires reductive activation
- mono-alkylating agent for DNA
- DNA-intercalating agent
- prodrug and requires oxidative activation

- a
 b
 c
 d

No, the answer is incorrect.

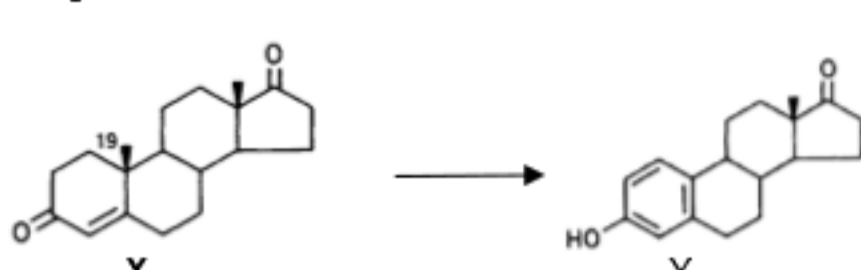
Score: 0

Accepted Answers:

a

9) In the following transformation

1 point



- X is an estrogen and Y is an androgen
- X is an androgen and Y is an estrogen
- The reaction is catalyzed by an enzyme called dehydrogenase
- The byproduct of the reaction is methanol

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

10) The anti-ulcer drug omeprazole (structure shown below) is

1 point

- a reversible proton pump inhibitor
- an antagonist of a H⁺/K⁺ ATPase
- an agonist of a H⁺/K⁺ ATPase
- an irreversible proton pump inhibitor

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d