**Question 1**

Antihistamines have significant effects at all of the following receptors EXCEPT?

A Nicotinic

B Serotonin

C Alpha adrenergic

D Muscarinic

Explanation A

The first generation H1 receptor antagonists have many actions not ascribable to blockade of its actions of histamine. Due to the similarity of its structure to other drugs that have effects on other receptors, antihistamines have effects on muscarinic, alpha adrenoceptors, serotonin, and local anaesthetic receptor sites. Some of these actions are of therapeutic value and some are undesirable

**Question 2**

Regarding histamine, which of the following statements is correct?

A It causes vasoconstriction and therefore hypertension

B It decreases smooth muscle spasm

C It increases myocardial contractility

D It has no effect on local edema

Explanation C

Histamine causes bronchospam, vasodilatation and hypotentsion. Direct cardiac effects of histamine include both increased contractility and increased pacemaker rate-mediated activity, chiefly by H2. It also causes local edematous wheals following a type 1 hypersensitivity reaction

**Question 3**

Which is true of ergotamine in pregnancy?

A It is given during the second stage of labour

B It causes uterine contractions at any dose

C Nausea and vomiting are rare side effects of ergotamine

D A term uterus is more sensitive to ergotamine than earlier in pregnancy

Explanation D

The stimulant action of ergotamine on the uterus, as on vascular smooth muscle combines alpha and serotonin agonist activity. Note that the stimulant effect is more closely related to serotonin agonist effects at the 5-HT2 receptor. Furthermore, the sensitivity of the uterus to the stimulant effects of ergotamine changes dramatically during pregnancy, most likely due to the increase dominance of alpha one receptors as pregnancy progresses. As a result, the uterus at term is more sensitive than a newly pregnant uterus (and the non pregnant uterus). In very small doses, ergot preparations can evoke rhythmic contractions and RELAXATION of the uterus. At higher concentrations, they induce powerful and prolonged contractions. Due to the harmful uterine spasms from the ergot derivatives and the resultant increase in foetal mortality, ergotamine is used solely for the third stage of labour- for the control of late uterine bleeding and must never be used before delivery. The most toxic effects of the ergot derivatives are GIT disturbances, including diarrhoea, nausea and vomiting.