

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI

Pharmacology-II (PHA F341)

END Semester Examination (CLOSED BOOK)

Date: 11/05/2018

Time: 60 Mins

Weightage: 20%

Marks: 30 M

Instructions: Write correct and precise answers (No Spelling Mistakes). Marks will only be given to correct and well explained answer and not to partial answers. Write in clear and legible handwriting.

1. Write the mechanism of action of following drugs. [Note: Explain mechanism in a stepwise manner. Do not write partial answers or key words. No marks will be awarded to partially explained mechanisms.] **[5M]**
 - a. Penicillin
 - b. Tetracyclins
 - c. Streptomycin
 - d. Erythromycin
 - e. Chloramphenicol

2. What will happen under following conditions with respect to drugs ADME/efficacy/toxicity with suitable explanation? [Note: Without proper explanation answer will not be considered] **[10M]**
 - a. Taking Tetracycline's concomitantly with dairy foods in the diet.
 - b. Concomitantly consuming Clarithromycin with Digoxin.
 - c. Concomitantly consuming Atorvastatin with Telithromycin.
 - d. Concomitantly consuming Streptomycin with Ethacrynic Acid.
 - e. Warfarin is concomitantly administered with Chloramphenicol.
 - f. Protamine sulfate is concomitantly administered with Heparin.
 - g. Warfarin was administered to a pregnant woman.
 - h. Cimetidine is concomitantly administered with Theophylline.
 - i. Rifampin concomitantly administered with Propranolol.
 - j. Cholestyramine concomitantly administered with Fluvastatin.

3. Write the rational for the following combinations. [Note: Without proper explanation answer will not be considered] **[5M]**
 - a. Amiloride and Hydrochlorothiazide.
 - b. Metronidazole, Omeprazole and Clarithromycin.
 - c. Nadolol and Bendroflumethiazide.
 - d. Captopril and Hydrochlorothiazide.
 - e. Clonidine and Chlorthalidone.

4. State the following sentences are TRUE or FALSE? **[Note: Each wrong answer carries: -0.5M]** **[10M]**

- a. Somatostatin is also called as growth hormone inhibiting hormone.
- b. Anti-inflammatory response of glucocorticoids is because of indirect inhibition of phospholipase A2.
- c. Aminoglutethimide acts by inhibiting the conversion of cholesterol to pregnenolone.
- d. Repaglinide stimulates insulin secretion by closing ATP dependent potassium channels.
- e. Proteolysis is an insignificant part of the secretory process of thyroxine and triiodothyronine.
- f. H₂ Receptor antagonists inhibiting acid production are irreversible inhibitors of H₂ receptors
- g. Proton pump inhibitors are known to stimulate the activity of hepatic cytochrome P450 enzymes thus increase the clearance of various drugs.
- h. β -Adrenergic Blocking Agents block the release of Renin.
- i. Inhibition of carbonic anhydrase increases the rate of formation of aqueous humor and thus increases intraocular pressure.
- j. Metoclopramide has anti-cholinergic as well as potent dopamine agonistic activity.