

TANTA UNIVERSITY

Department of Clinical Pharmacy

( 4th Year Pharmacy )



COURSE TITLE:	Final exam	Professional Pharmacy and Drug Interaction	COURSE CODE:
DATE:	8/8/ 2020	TERM: Second	TOTAL ASSESSMENT MARKS: 100
			TIME: 1.5 h

- Select only ONE best answer for each question.
- Transfer your selections properly to the answer sheet.
- Answer outside the answer sheet will not be marked.

**Q1 - Q5:**

- Match Drug interaction from column (I) with its most potential mechanism of such interaction from column (II).
- Transfer your selected match for each question properly to the answer sheet.

(I)	(II)
1-Tobramycin/Penicillin-G	A-Formation of amide linkage.
2-Acyclovir/Sulfenpyrazone	B-Accumulation of acetaldehyde.
3-Cefamandol/Ethyl alcohol	C-Inhibition of tubular secretion.
4-Amikacin/Cephalosporines	D-Induction of metabolism.
5-Isoniazid/Rifampin	E-Added nephrotoxicity.

**Q6 - Q10:**

- Match Drug interaction from column (I) with its most potential outcome from column (II).
- Transfer your selected match for each question properly to the answer sheet.

(I)	(II)
6-Dyphylline/Nadolol	A-Hypoglycemia.
7-Aminophylline/Thiabendazole	B-No significant interaction is seen.
8-Oral hypoglycemics/Phenytoin	C-Increased bronchial resistance.
9-Dyphylline/Thiabendazole	D-Nausea, Lethargy, general malaise.
10-Tobutamide/Diazoxide	E-Hyperglycemia.

**Q11 - Q15:**

-Patient with epilepsy under treatment with Drug (I). He contacted on infections disease to which Drug (II) was prescribed. During concurrent therapy, he developed aplastic anemia and agranulocytosis.

11-Drug (I) may be:

- A-Valproate.
- B-Ethoxide.
- C-Phenobarbital.
- D-All of the above.
- E-None of the above.

12-Drug (II) may be:

- A-Penicillin.
- B-Chloramphenicol.
- C-Erythromycine.
- D-Fluroquinolone.
- E-None of the above.

13-The developed reactions seen may be due to:

- A-Induction of metabolism of drug (II).
- B-Inhibition of metabolism of drug (II).
- C-Induction of metabolism of drug (I).
- D-Both A & C.
- E-Both B & C.

14-Beside the reactions seen, the patient may also develop:

- |               |             |                         |
|---------------|-------------|-------------------------|
| A-Anxiety.    | B-Sedation. | C-Gingival hyperplasia. |
| D-Both A & C. |             | E-Both B & C.           |

15-It is recommended that:

- |   |                      |
|---|----------------------|
| A-Concurrent administration of drug (I) & (II) should be avoided. |                      |
| B-The dose of drug (II) be decreased.                             |                      |
| C-The dose of drug (I) be decreased.                              |                      |
| D-Both B & C.   | E-None of the above. |
- 

Q 16 – Q20:

-Diabetic patient receiving oral hypoglycemic drug (I). He also received antiepileptic drug (II). Hyperglycemia was produced.

16-Drug (I) may be:

- |                     |              |                      |
|---------------------|--------------|----------------------|
| A-Tolbutamide.      | B-Biguanide. | C-Rosiglitazone.     |
| D-All of the above. |              | E-None of the above. |

17-Drug (II) may be:

- |                     |              |                      |
|---------------------|--------------|----------------------|
| A-Barbiturate.      | B-Phenytoin. | C-Valproate.         |
| D-All of the above. |              | E-None of the above. |

18-The developed hyperglycemia may be due to:

- |   |                      |
|---|----------------------|
| A-Increase glucose absorption from GIT drug (II).   |                      |
| B-Drug (II) inhibit metabolism of drug (I).         |                      |
| C-Drug (II) inhibits insulin release from pancreas. |                      |
| D-All of the above.                                 | E-None of the above. |

19-Drug (II) may also results in:

- |                     |                |                         |
|---------------------|----------------|-------------------------|
| A-Hypotension.      | B-Bradycardia. | C-Gingival hyperplasia. |
| D-All of the above. |                | E-None of the above.    |

20-It is recommended that:

- |   |                                       |
|---|---------------------------------------|
| A-The dose of drug (I) be increased.    | B-The dose of drug (II) be decreased. |
| C-Insulin therapy should be instituted. |                                       |
| D-All of the above.                     | E-None of the above.                  |
- 

21-The nature of interaction between aminoglycosides and penicillins is:

- |                                |                               |
|--------------------------------|-------------------------------|
| A-Pharmacokinetic interaction. | B-Pharmaceutical interaction. |
| C-Pharmacodynamic interaction. |                               |
| D-Pharmacological antagonism.  | E-None of the above.          |
- 

22-Accordingly, Drug (I) could be replaced by:

- |                     |               |                      |
|---------------------|---------------|----------------------|
| A-Terbutaline.      | B-Dyphylline. | C-Oxytriphylline.    |
| D-All of the above. |               | E-None of the above. |
- 

Q23 – Q32:

-Indicated which of the following statements are True (A) or False (E).

-Transfer your selection for each question properly to the answer sheet.

23-Coadministration of acyclovir and probenecid may result in inhibition of mammalian DNA synthesis.

24-Parenteral coadministration of semisynthetic penicillin and aminoglycoside antibiotics may result in formation of insoluble inactive complex.

- 25-Coadministration of high doses of cephalosporin and aminoglycoside antibiotics may result in added hepatotoxicity.
- 26-Other method of contraception may be required in case of concurrent administration of oral contraceptives and rifampin.
- 27-Insoluble chelate may be formed in case of coadministration of tetracyclines and antacid containing aluminum.
- 28-Hyperglycemia may be produced in patient receiving sulfonylureas and aspirin.
- 29-Corticosteroids antagonize insulin hypoglycemic effect.
- 30-Tolbutamide dose may be increased in case of concurrent administration with chloramphenicol.
- 31-Concurrent administration of aminophylline and isoflurane may result in increased heart rate and work.
- 32-Nausea and lethargy may be produced due to concurrent administration of dipylline and thiabendazole.

33- Regarding phenytoin-valproate interaction, which of the following is correct:  
 A- It usually involves malabsorption of both drugs.  
 B- It is a time dependent interaction.  
 C- Concurrent use should be avoided.  
 D- Serotonin syndrome may occur.

34- Which of the following interactions is dose dependent interaction?  
 A- Phenytoin\Cisplatin  
 B- Phenytoin\Lorazepam  
 C- Phenytoin\Folic acid  
 D- Valproate\Aspirin

35- Nephrolithiasis can occur due to concurrent use of acetazolamide with:  
 A- Valproate  
 B- Gabapentin  
 C- Lamotrigine  
 D- Topiramate

**Q 36– Q 39:**

- Match DI from column (I) with its potential outcome from column (II).
- Transfer your selected match properly to the answer sheet.

(I)	(II)
36- Phelzine/Ephedrine	A- Serotonin syndrome.
37- Diazepam/Fluvoxamine	B- Hypertension.
38- Imipramine/Clozapine	C-Increased sedation.
39- Fluoxetine/Phelzine	D- Heat stroke and paralytic ileus.

- 25-Coadministration of high doses of cephalosporin and aminoglycoside antibiotics may result in added hepatotoxicity.
- 26-Other method of contraception may be required in case of concurrent administration of oral contraceptives and rifampin.
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38- Imipramine/Clozapine	C-Increased sedation.
39- Fluoxetine/Phenelzine	D- Heat stroke and paralytic ileus.

**Q 40 – Q 43:**

- Match DI from column (I) with its potential mechanism from column (II).
- Transfer your selected match properly to the answer sheet.

(I)	(II)
40- Fluoxetine/Cyproheptadine	A- Pharmacological synergism.
41- Topiramate/Pioglitazone	B- Pharmacological antagonism.
42- Clozapine/Ritonavir	C- Induction of metabolism.
43- Clozapine/Benzodiazepines	D- Inhibition of metabolism

44- Concerning clozapine-carbamazepine interaction, which of the following is correct:

- A- Carbamazepine inhibits CYP3A4 and inhibits clozapine metabolism.
- B- Additive pancytopenia may occur.
- C- Clozapine inhibits excretion of carbamazepine.
- D- It is a beneficial combination for better seizures control.

45- The drug of choice for treatment of L-dopa induced emesis is:

- A- Metoclopramide.
- B- Domperidone
- C- Promethazine.

46- Serotonin syndrome can occur due to concurrent use of rasagiline with:

- A- Meperidine.
- B- Ephedrine
- C- L-dopa
- D- Spiramycin.

47- ..... is contraindicated in parkinsonism.

- A- Dextromethorphan
- B- Cotrimoxazole
- C- Reserpine
- D- Amantadine

48- ..... can impair L-dopa action.

- A- High sodium diet
- B- High carbohydrate diet
- C- High protein diet

49- Concurrent use of oral contraceptive and metoprolol may lead to:

- A- Insomnia
- B- Contraception failure
- C- Hypotension
- D- Hypertension.

50- Patients on warfarin and receiving contraceptive pills may experience:

- A- Bleeding
- B- Contraception failure
- C- Thromboembolism

**Q 51 – Q 54:**

- Match DI from column (I) with its potential mechanism from column (II).
- Transfer your selected match properly to the answer sheet.

(I)	(II)
51- Phenytoin/Clozapine	A- Decreasing absorption.
52- Oral contraceptive/Theophylline	B- Decreasing renal excretion.
53- Pramipexole/Cimetidine	C- Induction of metabolism.
54- Phenytoin/Cisplatin	D- Inhibition of metabolism

**Q55 –Q 64:**

Mark letter (A) for true statement and letter (B) for false statement in the answer sheet.

- 55- Women using oral contraceptive should be advised not to stop or start ascorbic acid.
- 56- Estrogen containing pills decrease theophylline plasma concentration in a dose dependent manner.
- 57- Loss of seizure control and contraception failure may occur in a woman receiving oral contraceptive and vigabatrin.
- 58- Cyclizine should not be concurrently used with L-dopa.
- 59- Dietary intake of pyridoxine and fortified cereals decrease L-dopa effect.
- 60- To start dextromethorphan, a separation of 14 days at least is required after discontinuation of rasagiline.
- 61- Ciprofloxacin can increase rasagiline induced arthralgia and dyspepsia.
- 62- Spiramycin decreases the absorption of L-dopa.
- 63- Lower doses of haloperidol are required for patients receiving rifampicin.
- 64- Quinidine inhibits the metabolism of aripiperazole through its action on CYP1A2.

**GOOD LUCK**