

Course No: NUTR 3317  
Course Title: Nutritional Pharmacology  
Date: 10/03/2018  
No. of Questions: (5)  
Time: 1 hours  
Using Calculator (No)

University of Palestine



1<sup>st</sup> Exam For 2<sup>nd</sup> Sem.  
2017/2018  
Total Grade: 30

Instructor Name: Mohammed Jami  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: Pharm. Sciences  
Dep. / Specialist: Nutrition  
Using Dictionary (No)

**Question One:** Please select the most appropriate answer from the options below. (15 M)

**1. After oral administration, drugs generally are absorbed best from the:**

- (a) Buccal cavity
- (b) Stomach
- (c) Duodenum
- (d) Ileum

**2. The main mechanism of most drugs absorption in GI tract is:**

- (a) Active transport
- (b) Facilitated diffusion
- (c) Endocytosis
- (d) Passive diffusion

**3. What does “pharmacokinetics” include?**

- (a) Pharmacological effects of drugs
- (b) Adverse effects of drugs
- (c) Chemical structure of a medicinal agent
- (d) Distribution of drugs in the organism

**4. Which route of drug administration leads to the first-pass effect?**

- (a) Sublingual
- (b) Oral
- (c) Intravenous
- (d) Intramuscular

**5. Bioavailability of drug refers to:**

- (a) % of administered dose that reaches systemic circulation
- (b) Ratio of oral to parental dose
- (c) Ratio of administered drug to excreted drug
- (d) Ratio of drug excreted in urine to that excreted in feces

**6. Oral route:**

- (a) Better absorption than parenteral administration
- (b) Limit the number of systemic infections
- (c) Used in unconscious patient
- (d) Produces quick onset of action

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**7. Advantage of sublingual route include the following EXCEPT:**

- (a) It has a rapid onset of action
- (b) Easy to terminate its action
- (c) It is limited to treat local conditions
- (d) It avoids first pass hepatic metabolism

**8. First pass metabolism:**

- (a) Can increase the oral bioavailability of the drug
- (b) Occurs in the intestinal wall
- (c) Is higher on intravenous administration
- (d) Decrease the bioavailability of the drug

**9. Pharmacokinetics is:**

- (a) The study of absorption, distribution, metabolism and excretion of drugs
- (b) The study of biological and therapeutic effects of the drugs
- (c) The method of development of new pharmacological agent
- (d) The study of carcinogenic activity of a new drug

**10. In which form the drug is absorbed more rapidly?**

- (a) In aqueous solution
- (b) In suspension
- (c) In oily solution
- (d) In solid form

**11. Drug metabolism occurs mainly in:**

- (a) Liver
- (b) Brain
- (c) Spleen
- (d) Kidneys

**12. Route of administration suitable for emergency is:**

- (a) Oral
- (b) IV
- (c) IM
- (d) SC

**13. All are disadvantages of oral route EXCEPT:**

- (a) Gastrointestinal irritation
- (b) Destruction of some drugs by the digestive enzyme
- (c) Irregular absorption in the presence of the food
- (d) Can be self-administered

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14. Volatile drug may be best administered by:

- (a) Oral route
- (b) Inhalation
- (c) Sublingual route
- (d) Rectal route

15. Parenteral administration of a drug refers to the giving of a preparation, EXCEPT:

- (a) Orally
- (b) Subcutaneously
- (c) Intramuscularly
- (d) Intravenously

Answer Key

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
11.	12.	13.	14.	15.					

**Question Two:**

(3 M)

Drugs A and B are administered orally. Drug A is administered at a dose of 800 mg, while drug B is taken at a dose of 12 mg. Both drugs are absorbed rapidly and completely from the gastrointestinal tract. Shortly after administration, there is 400 mg of drug A and 8 mg of drug B in the circulation.

1. Calculate the bioavailability of the two drugs.
  
  
  
  
  
  
  
  
  
  
2. What factor has influenced the bioavailability of these drugs?
  
  
  
  
  
  
  
  
  
  
3. In what ways could bioavailability of the drug with the lower bioavailability be improved?

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### Question Three:

(6 M)

State the appropriate term to match the description.

Description	Term
1. Agents naturally produced in animal cells or by microorganisms and used to treat a wide variety of conditions	[ ]
2. A food that beneficially affect body functions, beyond nutritional effects	[ ]
3. The situation or circumstance when a particular drug should not be used	[ ]
4. Products that are available without prescription for self-treatment of a variety of complaints	[ ]
5. Any use of a drug for non-medical purposes	[ ]
6. The transfer of a drug from the site of administration to the bloodstream	[ ]

### Question Four:

(3 M)

Indicate whether you think the absorption of the following medicines would be relatively poor or good based on the information provided:

1. Medicine A is a weak base in an acidic environment.
2. Medicine B has a small molecular weight.
3. Medicine C is injected into a body site with a poor blood flow.

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**Question Five:**

**(3 M)**

- A. Insulin is a protein that cannot be given orally. Why is this so?
- B. Only the dose separates a drug from a poison, Explain.

End of Questions  
*Good Luck*