

KATHMANDU UNIVERSITY
End Semester Examination
May/June, 2023

Marks Scored:

Level : B.Pharm.

Year : IV

Exam Roll No. :

Time: 30 mins.

Course : PHAR 412

Semester : II

F. M. : 20

Registration No.:

Date : 26 May, 023

SECTION "A"
[20Q. × 1 = 20 marks]

Encircle the most appropriate alternative from each set of choices.

- Interaction between tetracycline and OCP leading to failure of contraception is due to
a. Interference with enterohepatic cycling b. Plasma protein displacement
c. Antagonistic action d. Synergistic action
- IV bolus dose of potassium should be avoided due to the fear of.....
a. SIADH b. Fatal arrhythmia
c. Milk alkali syndrome d. Pancreatitis
- Higher CRP in a blood test is one of the markers for.....
a. Inflammation b. Anaemia
c. Vitamin deficiency d. Anxiety disorder
- Which of the following should be monitored continuously on TPN patients?
a. Serum glucose concentration b. Fluids
c. LFTs d. Serum lipid concentrations
- Patient with an organophosphate poisoning can present with the following symptoms except.....
a. Sweating b. Miosis c. Lacrimation d. Xerostomia
- In which type of study, data are reported in the language of the informant?
a. Quantitative b. Qualitative
c. Mixed method d. Descriptive
- Which of the following is an example of regulatory strategies for improving RDU?
a. Inform or persuade health care providers'
b. Inform STGs
c. Offer incentives
d. Prescribing controls
- Enzyme induction during drug-drug interaction can lead to.....
a. Loss of efficacy b. Enhance efficacy
c. No effect d. Reverse effect
- Not prescribing statins in patient with recent MI is an example of.....
a. Subtherapeutic dose b. Untreated indication
c. Improper drug selection d. Overdoses

10. Which one of the following is not true for lead toxicity?
 - a. Effect in IQ
 - b. Effect in vitamin D metabolism
 - c. Acute encephalopathy
 - d. Found in keratin-rich tissues
11. Mechanism for contrast induced nephropathy is.....
 - a. Reactive oxygen species formation
 - b. Uncontrolled HTN
 - c. Increased blood sugar
 - d. Increased blood cholesterol
12. Cytotoxic drugs can lead to.....
 - a. Leucopenia
 - b. Neutrophilia
 - c. Leukocytosis
 - d. Eosinophilia
13. scale is used to evaluate severity of a reported ADRs.
 - a. Naranjo
 - b. Morisky
 - c. Hartwig et al
 - d. Thornton-Schummock
14. is measurement of drug concentration in patient's blood at specific time intervals.
 - a. TDM
 - b. Clinical Pharmacokinetics (CPKs)
 - c. Bioavailability
 - d. Bioequivalence
15. For urine sample analysis, which of the following is **NOT CORRECT**?
 - a. % of unchanged drug in urine must be at least 10%
 - b. % of metabolites in urine must be at least 10%
 - c. Unchanged drug concentration and volume of urine will be recorded
 - d. Urine will be collected for the period of 7 half-life of drugs
16.body weight is used for underweight patient in Cockcroft and Gault equation.
 - a. Adjusted
 - b. Actual
 - c. Linear
 - d. Ideal
17. body weight is used for obese patient in Cockcroft and Gault equation.
 - a. Adjusted
 - b. Actual
 - c. Linear
 - d. Ideal
18. Continually improving antimicrobial stewardship program to ensure the correct use represents.....
 - a. Refining
 - b. Reviewing
 - c. Reduction
 - d. Replacing
19.are used to simplify medicine regimens to improve adherence.
 - a. Dosing cards
 - b. MEMS
 - c. Self-reports
 - d. Reminder calls
20. Condition where a dose of the drug has to be progressively increased over the course of time to maintain rewarding or therapeutic effects is called.....
 - a. Tolerance
 - b. Adaptation
 - c. Relapse
 - d. Aversion

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Level : B.Pharm.
Year : IV
Time : 2 hrs. 30 mins.

Course : PHAR 412
Semester: II
F.M. : 55

SECTION "B"

[5Q. × 3 = 15 marks]

Attempt *ANY FIVE* questions.

1. Discuss on the major objectives of antimicrobial stewardship program.
2. What are the objectives of ward rounds in patient care?
3. Discuss on steps involved during counselling for patient using a salbutamol inhaler.
4. Discuss on various dimensions affecting medication adherence.
5. Define and differentiate between 'Pharmacogenomics' and 'Pharmacogenetics'.
6. What is total parenteral nutrition? List out the associated complications of TPN.
7. Write short notes on (*ANY TWO*):
 - a. Types of data collection methods in DUE studies
 - b. Tasks of TDM team
 - c. Management of paracetamol poisoning

SECTION "C"

[5Q. × 5 = 25 marks]

Attempt *ANY FIVE* questions.

8. Explain various drug related problems with an example for each.
9. Explain briefly about various causes of electrolyte abnormality and available treatments.
10. What are the impacts of genetic variations on drug response?
11. What is the mechanism of interaction used by probenidol that makes penicillin more efficacious antibiotics, explain?
12. What are chelating agents, explain MOA of penicillamine in heavy metal toxicity?
13. Describe how the pharmacokinetics of a drug is affected due to age. Why is it risky to feed medicines in infants of age less than one year?
14. The DUE team in a hospital has identified widespread use of ceftriaxone injections for common cold and sore throat. The team recommended the need of appropriate interventions to regulate its use. A briefing session was given to the prescribers but that did not seem to have good impact when reviewed after certain time.
 - a. What type of strategy was used in this scenario, discuss its strength and limitations?
 - b. What other strategies could have been used to provide feedback on the findings to the prescribers?

SECTION "D"

[2Q. × 7.5 = 15 marks]

Attempt *ANY TWO* questions.

15. What are various steps to in conducting a drug use evaluation studies? Discuss on WHO based core indicators for rational drug use.
16. Define drug abuse, mechanism and problems associated with drug abuse? Explain in detail about the treatment methods for alcohol abuse.
17. Calculate the creatinine clearance for following three patients based on the provided patient characteristics details.

Patient characteristics	Patient A	Patient B	Patient C
Height	5 feet 11 inch	5 feet 2 inch	6 feet 1 inch
Gender	M	M	F
Age (years)	40	60	75
Weight (lbs.)	160	190	200
Serum Creatinine (mg/dl)	1	3	5