

KATHMANDU UNIVERSITY  
End Semester Examination  
July/August, 2024

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

13 AUG 2024

Course : PHAR 322  
Semester : I  
F. M. : 55

*Note: Check (✓) the number of each question you have answered in the front page of main answer book (of Sections B, C and D).*

SECTION "B"  
[5 Q. × 3 = 15 marks]

*Attempt ANY FIVE questions.*

1. Write down the various steps involved in dispensing of a prescription.
2. What are the differences between "Terminal sterilization" and "Aseptic techniques"?
3. What were the initiatives taken by the Pharmacy council after Nuffield report in United Kingdom?
4. What are the barriers to communication in counseling of a patient?
5. What is responding to symptoms? Write down any two mnemonics and their uses.
6. Define following terms:
  - a. Trituration
  - b. Levigation
  - c. Geometric dilution
7. Why can medicines be used only for a limited period of time?

SECTION "C"  
[5 Q. × 5 = 25 marks]

*Attempt ANY FIVE questions.*

8. Write down the advantages and disadvantages of Transdermal Drug Delivery System. Write down the steps in application of Transdermal patch. (3+2)
9. Write down the steps in use of a metered dose inhaler. Write down the disadvantages associated with use of metered dose inhaler. (3+2)
10. Write in detail about the stability issues that may arise in an emulsion. Describe any one method of preparation of an emulsion. (3+2)
11. Write a detailed note on "Formulation of solution".

P.T.O.

12. You are asked to prepare 15 suppositories each of 1g weight. Each suppository contains Paracetamol 100 mg. Displacement value of Paracetamol is 1.5. Calculate how much hard fat base would be contained in each suppository.
13. What are the various ingredients used in formulation of a suspension? State the functions and examples of each ingredient. How do you reconstitute dry powder suspension (3+2)
14. What is Good Pharmacy Practice? What are the standards that need to be set for GPP?

SECTION "D"

[2 Q. × 7.5 = 15 marks]

*Attempt ANY TWO questions.*

15. Describe the various steps in answering Drug Information Queries and Poison Information Queries.
16. Write in detail about the preparation, handling and management of cytotoxic drugs. Also write about the validation of operator techniques.
17. Answer the following questions
  - a. Dialysis and its' types [3.5]
  - b. Large volume parenterals and Small volume parenterals [4]

KATHMANDU UNIVERSITY  
End Semester Examination  
July/August, 2024

Marks Scored:

Level : B.Pharm.  
Year : III

Course : PHAR 322  
Semester : I

Exam Roll No. : Time: 30 mins.

F. M. : 20

Registration No.:

Date : 13 AUG 2024

SECTION "A"

[20 Q. × 1 = 20 marks]

Choose and encircle in the most appropriate option from each set of choices

1. Which of the following statements is **TRUE**?
  - a. Prescription is not a legal document
  - b. Drug Act 1978 has also included providing counseling to patients as the responsibility of dispenser
  - c. Inscription part of prescription represents medications prescribed for the patients
  - d. Subscription part of prescription represents instruction given to the patients.
  
2. Ethylene oxide is used in \_\_\_\_\_
  - a. Dry heat sterilization
  - b. Irradiation
  - b. Moist heat sterilization
  - d. Gaseous sterilization
  
3. ISO Class 7 is equivalent to \_\_\_\_\_ FS 209 Class
  - a. Class 10
  - b. Class 10000
  - c. Class 100000
  - d. Class 100
  
4. Dialysate is warmed to \_\_\_\_\_
  - a. Augment ultrafiltration
  - b. Prevent pain and cramping during the initial minutes of an exchange
  - c. Create a diffusive gradient between the peritoneal and blood compartments
  - d. Allow easy maintenance of electrolyte imbalance
  
5. Which of the following statements is **TRUE**?
  - a. Glass ampoules are made of Type III borosilicate glass
  - b. Ceramic paint ring on the ampoule neck is to mark the fill volume.
  - c. Heat is not used in blow fill and seal process for making ampoules
  - d. Contamination of solutions with glass microparticles on breaking open glass ampoules is possible
  
6. Injection formulations contain Ethylenediaminetetraacetic acid (EDTA) or citric acid to
  - a. Act as a preservative
  - b. Remove micro-organisms
  - c. Remove trace elements that catalyze oxidative degradation
  - d. Prolong shelf life of the product

7. Which of the following statements is **FALSE**?
- A small volume parenteral is any sterile pharmaceutical preparation packed in a volume of more than equal to 100ml
  - Small volume parenteral maybe contained in a vial, ampoule, pre-filled syringe, or a squeezable container.
  - A single SVP container may contain more than one dose.
  - Small volume parenteral applications range from otic and oral drops to vaccinations and local anaesthetics.
8. Which of the following statements is **TRUE**?
- Suspensions hydrolyse more rapidly than solutions
  - Suspensions have reservoir system that releases the drug slowly to replace the degraded amount
  - Buffer capacity of ophthalmic products must be high
  - Tear fluids do not possess any buffering capacity
9. Which of the following statements is **TRUE**?
- Disposable lenses are discarded after 1 month, 1 week or even 1 day
  - Soft lenses are made of polymethylmethacrylate
  - Hard lesnses are made of hydroxyethyl ester of polymethacrylic acid
  - Wetting solution is needed to facilitate wearing of soft lenses.
10. Between 1979 and 1986 many reports on the future of pharmacy were prepared in United Kingdom. \_\_\_\_\_ is one of them.
- Noble
  - Nuffield
  - Nofield
  - Neodim
11. Which of the following flavouring agents would you choose to mask a bitter taste?
- Mint
  - Apricot
  - Vanilla
  - Citrus fruits
12. Shelf life is the time that a medicine can be kept before the potency has fallen to \_\_\_\_\_ of the original.
- 80%
  - 60%
  - 90%
  - 97%
13. Sociable area to be maintained during communication is approximately \_\_\_\_\_
- > 3cm
  - 0.5-1m
  - 15-50 cm
  - 1-3 cm
14. Which of the following is not a property of "Theobroma Oil"?
- Readily liquefies on heating but sets rapidly on cooling
  - It is polymorphic
  - It can adhere to the walls of suppository mould
  - It is suitable for use in hot climate
15. The abbreviation More dicto stands for \_\_\_\_\_
- As before
  - Send
  - Let it be made
  - As directed

16. The abbreviation gtt. stands for \_\_\_\_\_  
a. Draught                      b. Eye                      c. Eye lotion                      d. Drop
17. Which of the following statements is false?  
a. Very fine particles will form a hard cake at the bottom of container  
b. Rate of sedimentation of particles depends on the porosity of flocs  
c. In Transdermal drug delivery system, plasma concentration of drug declines to undetectable concentration by 12 hours  
d. Propofol is available as an emulsion
18. Which of the following statements is **FALSE**?  
a. Starch mucilage can be used as a binder  
b. Ascorbic acid is available as an effervescent tablet  
c. Microcrystalline can be used as a disintegrating agent in tablets  
d. Glyceryl trinitrate tablets can be packed in plastic containers with tightly fitting screw caps
19. Which of the following statements is **TRUE**?  
a. Capsules can be used to hold oil for inhalation  
b. Potassium sorbate is an opacifier used in soft gelatin capsules  
c. Hard shell capsule no. 4 has a capacity of 450 mg.  
d. Finished soft gelatin capsule contains 75% w/w water
20. Which of the following is **TRUE** for "Mixing by fusion"?  
a. Temperature above 100<sup>o</sup>c is required  
b. Mixing should be gentle  
c. Soluble and stable medicament must be added when the base is cool  
d. Less stable or insoluble medicament must be added when the base is molten

