

10. The first stage in creating the sales forecasting is to estimate
 - a. Market demand
 - b. Profit
 - c. Wealth
 - d. prospect
11. Which among the following is the characteristic of the oral monolithic devices?
 - a. Drugs are dissolved in oil
 - b. Drug has a large therapeutic index
 - c. Injectable
 - d. Termination at any time is conceivable
12. What are the characteristics of the reservoir devices?
 - a. Administration of emulsion
 - b. Drug permeation rate is high
 - c. Follows fick's law
 - d. Partitioning the drug from oil
13. Which among the following drug delivery vesicle contains surfactant?
 - a. Conventional liposome
 - b. Ethosome
 - c. Phytosome
 - d. Transfersome
14. Identify the type of polymer. "—A—B—B—B—A—B—B—B—"
 - a. Block copolymer
 - b. Copolymers
 - c. Graft copolymer
 - d. Homopolymers
15. Dosage form designed to release drug at a time other than promptly after administration is
 - a. Delayed release
 - b. Extended release
 - c. Repeat action
 - d. Sustained release
16. Which among the following liposomes have highest load of hydrophobic drug to size ratio?
 - a. Multi lamellar vesicle
 - b. Small unilamellar vesicle
 - c. Large unilamellar vesicles
 - d. Unilamellar vesicle
17. The correction of the defective gene in all cell of individual is achieved by
 - a. Germ line therapy
 - b. Somatic cell therapy
 - c. Gene augmentation therapy
 - d. Corrective therapy
18. Which of the following viral vectors has the highest capacity for foreign DNA?
 - a. Adenovirus
 - b. Retrovirus
 - c. Baculovirus
 - d. Adeno associate virus
19. Which gene is often removed to create replication-deficient adenoviruses?
 - a. L1
 - b. L5
 - c. E1
 - d. E3
20. Tungsten for gene delivery is used in..... method
 - a. Magnetofection
 - b. Electroporation
 - c. Ballastic
 - d. Viral vector

KATHMANDU UNIVERSITY
End Semester Examination

17 January 2024

Level : B.Pharm.

Year : IV

Time : 2 hrs. 30mins.

Course : PHAR 428

Semester : I

F. M. : 55

Indicate by checking (✓) of each question you have answered in the cover page of main answer book.

SECTION "B"

[5Q × 3 = 15 marks]

Attempt *ANY FIVE* questions.

1. Mention any 3 reasons for not maintaining pressure cascade by HVAC."
2. Are "Pilot plant scale up" and "Technology transfer" are same? Justify your answer.
3. Mention three conditions in which inventories are required and not required.
4. What are the various approaches that are used in gene therapy?
5. What makes retrovirus a suitable vector for delivery of therapeutic gene?
6. Write about the mechanisms for drug delivery by liposomes.
7. What is controlled drug delivery system? Give suitable examples.

SECTION "C"

[5 Q. × 5 = 25 marks]

Attempt *ANY FIVE* questions.

8. Pharmaceutical industry use stream as a water source. Describe how it make purified water to use in production?
9. How does pharmaceutical pollution occur? How can we control it?
10. Write a short note on "pumps used in fluid transportation".
11. How you can control inventories and cost in pharma industries.
12. What are "Osmotic pumps"? Describe its working mechanisms using suitable figures.
13. How "Enhanced Permeability and Retention effect" can be used for targeting drug release?
14. What is antisense therapy? How it can cause specific inhibition of gene expression?

SECTION "D"
[2 Q. × 7.5 = 15 marks]

Attempt *ANY TWO* questions.

15. Define work study, method study and work measurement. Describe the procedure of work study.
16. Why adenoviruses are used for delivery of recombinant genes? How is it prepared and used for delivery of recombinant genes?
17. Discuss on application of polymers in preparation of controlled drug delivery system?