Mark scored:

KATHMANDU UNIVERSITY
End Semester Examination
July/August, 2019

Level : B. Pharm.
Year : IV

Course : PHAR 414
Semester: II

Exam Roll No. :

Time: 30 mins.

F. M. : 20

Registration No.:

Date :

SECTION "A"
[20Q × 1 = 20 marks]

I. Check (√) the correct answer of the following multiple choice questions.

1. ..... Will be used for mixing in scale up of tablet manufacturing if Rapid mixing and granulator (RMG) is there in production scale.
   a. V-cone blender
   b. tumbler mixer
   c. RMG
   d. Planetory mixer

2. ..... is an example of a condition caused by a mutation in a single gene?
   a. Colon cancer
   b. Heart disease
   c. AIDS
   d. Cystic fibrosis

3. When was the first gene therapy patient treated
   a. 1980 b. 1988 c. 1990 d. 1999

4. .....conveyer is used to transfer powders.
   a. Roller b. Screw c. Chain d. Scraper

5. ..... Layout of plant is preferred if production is of low volume but high variability.
   a. Line
   b. Process
   c. Fixed position
   d. Product

6. ..... Conveyer is not used for bulk powder transport.
   a. Screw b. Roller c. belt d. bucket

7. ..... Pump is used to transfer corrosive and toxic liquids.
   a. Piston b. Plunger c. Screw d. diaphragm

8. BOD value very high indicates.....
   a. Water is clean
   b. water is good for fish
   c. good quality of water
   d. water is polluted

9. ..... is not an inventory.
   a. Machines
   b. Raw materials
   c. Finished products
   d. Consumable tools

10. The cost of insurance and taxes are included in.....
   a. Cost of ordering
   b. Set up cost
   c. Inventory carrying cost
   d. Cost of shortages

11. The correct order of procedure in method study is .....
    a. Select – Record – Examine – Develop – Define – Install – Maintain
    b. Select – Define – Examine – Develop – Record – Install – Maintain
    c. Select – Record – Develop – Examine – Define – Install – Maintain
    d. Select – Record – Examine – Define – Develop – Install – Maintain

12. In process charts, the symbol used for storage is .....
    a. Circle b. Square c. Arrow d. Triangle

13. Basic tool for work study is .....
    a. Graph paper
    b. Process chart
    c. Stop watch
    d. Analytical mind

14. DOP used in validation of HEPA filter is:
    a. Dioctyl pyruvate
    b. Dioctyl phthalate
    c. Dioctahedral pthaladehyde
    d. Dioctane Pthalazine

15. Which of the following eye preparation has the lowest bioavailability?
    a. Ointment b. Suspension c. Solution d. contact lens

16. Concerning Water for Injections, which of the following is true?
    a. Water for Injections must be sterile.
    b. Water for Injections contains the preservatives.
    c. Water for Injections contains buffers to control the pH.
    d. Water for Injections is pyrogen-free

17. RO membranes are made of _____
    a. Plastic b. Cotton c. Silk d. Polymer

18. Regarding the intramuscular route of parenteral administration, which of the following are true except?
    a. Intramuscular administration of parenteral formulations provides a rapid onset of drug action.
    b. Large-volume parenteral formulations are routinely administered intravenously.
    c. Emulsion parenteral formulations may be administered intramuscularly.
    d. Solution parenteral formulations may be administered intramuscularly.

19. A controlled release drug delivery system is capable of achieving the following benefits over conventional dosage forms except
    a. Total dose is low.
    b. Reduced GI side effects and other toxic effects.
    c. Reduced dosing frequency.
    d. Dose dumping

20. Cornea contains three layer:
    a. outer epithelium (lipophilic), Stroma(hydrophilic) and endothelium(lipophilic).
    b. outer epithelium (hydrophilic), Stroma(hydrophilic) and endothelium(lipophilic).
    c. outer epithelium (lipophilic), Stroma(hydrophilic) and endothelium(hydrophilic).
    d. outer epithelium (lipophilic), Stroma(lipophilic) and endothelium(hydrophilic).

KATHMANDU UNIVERSITY
End Semester Examination
July/August, 2019

Level : B.Pharm. | Course : PHAR 414
Year : IV | Semester: II
Time : 2 hrs. 30 mins. | 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"
[5Q × 3 = 15 marks]

II. Answer *ANY FIVE* questions.

1. Describe the microencapsulation technique which does not evaporate solvents during encapsulation process.

2. What is the difference between ex vivo and in vivo gene therapy and viral and non-viral vectors?

3. What is Pilot plant? Why conduct pilot plant scale up?

4. Classify types of pumps with their specialities.

5. Define liposome. Classify liposome.

6. What is sustained release dosage form? Explain its ideal requirements?

7. Write short note:
   a. HEPA Filters b. Osmotic Controlled System

SECTION "C"
[5Q × 5 = 25 marks]

III. Answer *ANY FIVE* questions.

8. Define "Microencapsulation". Describe any one technique that is using evaporation of solvents.

9. Describe the Non- viral genetherapy.

10. What are the things you consider if you have to scale up tablet production?

11. What are the things you will consider for choosing location of new pharma industry and why?

12. Discuss about the transport barriers in the Eye encounter by the drug?

13. Define the airlock system. Explain the different types of airlock used in pharmaceutical industry?

14. Explain the process used in the purification of water in pharmaceutical industry?

SECTION "D"

[2Q × 7.5 = 15 marks]

IV. Answer *ANY TWO* questions.

15. Describe the major sources and possible consequences of pharma pollution in environment.

16. Explain the different components of HVAC system with semantic diagram?

17. Explain and discuss about the ideal requirements and the components of parenteral formulations?