KATHMANDU UNIVERSITY
End Semester Examination [C]
July, 2017

JUL 11 2017

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

Course : PHAR 404
Semester : I
F. M. : 55

SECTION "B"

[5Q. × 3=15 marks]

Note: Check (✓) the number of each question of Section B, C and D you have answered in the front page of main answer book. Unnecessary writing will deduct your marks.

Answer *ANY FIVE* questions:

1. What is pre-gelatinized starch? Mention its pharmaceutical application.
2. What is effervescent tablet? Mention its principal formulation ingredients.
3. Draw a well-labeled diagram of fluidized bed coater showing its mechanism of coating.
4. Briefly explain the general operating steps for filling of hard gelatin capsule.
5. How can we prevent breaking or cracking of pharmaceutical emulsions?
6. Mention use and limits of compressed gas as propellant in pharmaceutical aerosols.
7. What are feed additives? Mention its advantages and limitations.

SECTION "C"

[5Q. × 5=25 marks]

Answer *ANY FIVE* questions:

8. Briefly explain various stages of tablet compression cycle. How can we achieve minimum weight variation during compression of tablets?
9. Discuss on pharmaceutical benefits of granulation.
10. Explain working principle of meter valve used in pharmaceutical aerosols with figure.
11. How can you improve penetration rate of a drug through human skin.
12. Mention the principal formulation ingredients used for preparation of pharmaceutical suspension. Write down the function of each ingredient.

13. Why vortex formation is not desired during mixing of liquids? Give your approach for preventing it?

14. Suggest a suitable plastic resin for packaging of 'Oral rehydration salts'. Give your reasons.

SECTION "D"

[2 Q. × 7.5=15 marks]

Answer *ANY TWO* questions:

15. Write about different methods for preparation of granules. Discuss on various aspects that you should consider while selecting the granulation methods.

16. Prepare a list ofprocess variables associated with pan spray method of tablet coating, relate eachprocess variables with coating defects, and give suitable approaches for remedy of the defects.

17. Explain the importance of study on physiochemical properties of drugs during preformulation studies. Give suitable examples.