

KATHMANDU UNIVERSITY  
End Semester Examination  
February/March, 2019

Marks scored:

Level : B. Pharm.  
Year : IV

Course : PHAR 404  
Semester: I

Exam Roll No. :

Time: 30 mins.

F. M. : 20

Registration No.:

Date FEB 21 2019

SECTION "A"  
[20 Q. × 1= 20 marks]

Check (✓) the correct answer of the following multiple choice questions:

- Which one of the following is NOT a physical property of drug substance being evaluated during preformulation studies?
  - Particle size distribution
  - Degradation profile
  - Solubility
  - Polymorphism
- Generally, what is the upper limit of alcohol content in elixirs?
  - 30%
  - 40%
  - 50%
  - 60%
- Excipients are added to tablet dosage form to improve processability. An ideal excipient should have all these properties EXCEPT
  - Non-toxic
  - Physiologically active
  - Stable
  - Low cost
- Concerning roller compaction as a method for tablet manufacture, which of the following statement is true?
  - Roller compactions requires the application of heat.
  - Roller compaction is suitable for the manufacture of tablets containing high-potency (i.e. low-dose) drugs.
  - Roller compaction produces very hard tablets.
  - Roller compaction requires only conventional excipients.
- Concerning film coatings, which of the following statement is true?
  - Film coatings may enhance the dissolution rate of therapeutic agents in the gastrointestinal tract.
  - Enteric film coatings should dissolve in the stomach.
  - Aqueous film coatings, e.g. hydroxypropylcellulose, may be employed to target drug release at the colon.
  - Film coatings may be employed to mask the taste of unpalatable therapeutic agents.
- Solid fills for hard gelatin capsules frequently contain which of the following excipient is for the designated purpose?
  - Glidants – to improve dissolution retardant
  - Lactose – as a glidant
  - Magnesium stearate – as a lubricant
  - Starch – as a binder

7. Regarding hard gelatin capsules, which of the following statement is true?
  - a. Hard gelatin capsules can come in contact with aldehydes such as Formaldehyde.
  - b. Hard gelatin capsules may be filled with aqueous liquids.
  - c. Hard gelatin capsules may be filled with non-aqueous liquids.
  - d. Hard gelatin capsules may be filled with aqueous drug suspensions.
  
8. Which of the following excipient is a common component of the fill of soft gelatin capsules?
  - a. Alcohol
  - b. Lipophilic liquids, e.g. soyabean oil
  - c. Lactose as a filler
  - d. Lubricants, e.g. magnesium stearate
  
9. Regarding the use of co-solvents for the formulation of pharmaceutical solutions for oral administration, which of the following statement is true?
  - a. Co-solvents are required in all pharmaceutical solution formulations.
  - b. Alcohols are commonly used as co-solvents in pharmaceutical solutions.
  - c. Glycerol may directly affect the pH of the formulation.
  - d. Co-solvents will not affect the viscosity of the solution formulation.
  
10. Regarding the electrical double layer, which of the following statement is true?
  - a. The zeta potential is principally due to ionisation of the drug particle.
  - b. The zeta potential for insoluble basic drugs is always positive.
  - c. Manipulation of the zeta potential may be used to enhance the physical stability of suspensions.
  - d. Increasing the concentration of added electrolyte enhances the thickness of the electrical double layer.
  
11. Regarding the role of surfactants in pharmaceutical suspensions for oral administration, which of the following statement is true?
  - a. Surfactants decrease the water contact angle of dispersed drug particles.
  - b. Surfactants promote deflocculation.
  - c. Surfactants with low HLB are used to stabilise oral suspensions designed for oral administrations.
  - d. Surfactants increase the viscosity of the continuous phase of pharmaceutical suspensions.
  
12. Regarding the rate of creaming of pharmaceutical emulsions, which of the following statement is true?
  - a. The rate of creaming is increased as the diameter of the internal phase is decreased.
  - b. The rate of creaming is increased as the viscosity of the continuous phase is increased.
  - c. The rate of creaming is affected by the concentration and type of incorporated surfactants.
  - d. The rate of creaming is decreased by centrifugation.
  
13. The advantages of metered-dose inhalers include:
  - a. Administration of high doses of therapeutic agent.
  - b. Difficulty for the patient.
  - c. Requirement for patient's ability to coordinate actuation and inhalation.
  - d. Lesser efficiency than nebulisers.

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14. Concerning propellants for metered-dose inhalers, which of the following statement is true?
- The vapour pressure decreases at the end of the lifetime of use of the inhaler.
  - The use of chlorofluorocarbons has decreased in recent years.
  - The volume of propellant released upon actuation is controlled by a metering valve.
  - All metered-dose inhalers are filled under atmospheric conditions.
15. With respect to pharmaceutical gels, which of the following is true?
- Pharmaceutical gels reflect light, causing the product to have a 'creamy white' appearance.
  - The structural properties of the gel are specifically due to the high water content of the formulation.
  - Pharmaceutical gels are frequently formulated using long chain hydrocarbons.
  - They may contain surface-active agents to enhance the solubility of the therapeutic agent.
16. With respect to pharmaceutical liniments, which of the following is true?
- Pharmaceutical liniments are formulated as solutions or suspensions.
  - Pharmaceutical liniments are typically used for the treatment of systemic conditions.
  - Pharmaceutical lotions are aqueous formulations.
  - Pharmaceutical lotions may be rubefacient, thereby increasing drug penetration across the skin.
17. Movement of dosage form constituents from dosage form to packaging material is known as .....
- Leaching
  - Sorption
  - Adsorption
  - Permeation
18. .... is the secondary function of packaging materials.
- Protective
  - Storage
  - Loading and transport
  - Promotion/sales
19. It is not easy to push a pill down or other medication a large animal's throat. For that purpose, veterinarians use .....
- Balling guns
  - Drench syringes
  - Hollow bits
  - Buyoant devices
20. Veterinary dosage form targeted for Rabbit better to contains which flavor.....
- Grape
  - Banana
  - Peanut butter
  - Cherry

