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Total Pages : 3

First Year Pharmacy
PHARMACEUTICS - I
(101)

Time : Three Hours

Maximum Marks : 80

- Note :** i) Attempt total *six* questions. Question No.1 is compulsory.
From the remaining questions attempt any *five*.
ii) Illustrate your answer with neat sketches wherever necessary.

1. Attempt any five : 5×2=10
 - a) Why drugs are not given in their original pure state?
 - b) Name different types of materials used for making of containers.
 - c) Define the term “Size separation”.
 - d) Give the list of equipments used for mixing of semi-solids.
 - e) Write the Daray’s law equation.
 - f) Enlist the different types of maceration process.
2. Attempt any two questions: 2×7=14
 - a) Calculate the quantity of sodium chloride required to prepare 2 pint of 1 in 200 solution.
 - b) Find the concentration of sodium chloride required to make a 1% solution of Boric acid, iso-osmotic with blood plasma.
(Given : The freezing point of 1% w/v solution of Boric acid is -0.288°C . The freezing point of 1% w/v solution of sodium chloride is -0.576°C).
 - c) Find the proportion of dextrose needed to form a solution iso-osmotic with blood plasma.
3. Explain construction, working and application for any two of the following: 2×7=14
 - a) Cutter mill
 - b) Cyclone separator
 - c) Filter leaf
 - d) Sublimation process

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4. Give reasons (any four) : 4×3½=14
- a) Simple syrup I.P. is more sweet than simple syrup U.S.P.
 - b) Water is not the choice of menstruum for extraction of active constituents from plant materials.
 - c) White soft paraffin is contraindicated for the formulation of ophthalmic ointments.
 - d) Parenteral preparation must be from pyrogen.
 - e) Marc is not pressed and final volume is adjusted during maceration process for Unorganised drugs.
 - f) Sublimation process.
5. Write note on any two of the following : 2×7=14
- a) Solvents used in extraction process
 - b) Steam distillation
 - c) Application of drying
6. Attempt any two : 2×7=14
- a) Advantage and Disadvantages of Tablets.
 - b) Describe briefly manufacturing of Compressed Tablets.
 - c) Manufacturing, packaging and storage of soft gelatin capsules.
7. Attempt any two questions : 2×7=14
- a) Classify briefly methods of sterilisation. Describe mechanical methods of sterilisation.
 - b) Classify types of Immunity.
 - c) How are antitoxin differs from antiserum? Write in brief about Diphtheria antitoxin.
8. a) Match the Column 'A' against Column 'B'. 3½
- | Column 'A' | Column 'B' |
|-------------------------------|--------------------|
| i) Glidant | 1) Lactose |
| ii) Diluent | 2) Talc |
| iii) Moist heat sterilisation | 3) Culture media |
| iv) Dry heat sterilisation | 4) Tablets |
| v) Weight variation | 5) Only injections |

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Contd.....

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- b) Fill in the blanks : 3½
- i) When a drug is extracted by sealing at a particular pressure the process is called _____
 - ii) The liquids-boils when its _____ is equal to the atmospheric pressure.
 - iii) Vacuum dryer is modified form of _____ still.
 - iv) In moist heat sterilisation, the minimum holding time for sterilisation of injection of 121°C is _____
- c) State whether True/False. 3½
- i) 1 dessertspoonful = 8 mL
 - ii) Powders is sterilized by moist heat sterilisation.
 - iii) Fractional distillation is used for the separation of two immiscible liquids.
 - iv) Friability test limit for uncoated tablet is less than 0.8%.
- d) Define the following terms : 3½
- i) Chewable tablets
 - ii) Picking and sticking
 - iii) Enteric coated capsule
 - iv) Toxin and Toxoids



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