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S/2019/1943

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-osmatic 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-osmatic 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
      ophthamic 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. http://www.rgpvonline.com

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

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