

**F/2019/1943**

**Total Pages : 2**

**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) Define the term “Unit Dosage form”.
  - b) Name any two emulsifying agents.
  - c) Name the different methods of size reduction.
  - d) Define positive mixture.
  - e) Why drugs are not given in their original pure state.
  - f) Name the different types of metals used in the construction of collapsible tube.
  
2. Attempt any two: 2×7=14
  - a) Differentiate between ‘Drug’ and ‘Additive’. Write importance of dosage form.
  - b) How will you prepare 500ml, 40% alcohol solution from 60% and 30% solution respectively.
  - c) Find the proportion of sodium chloride required to produce a solution iso-osmotic with blood plasma.
  
3. Attempt any two: 2×7=14
  - a) Explain the importance of particle size reduction.
  - b) Give in detail about various official grades of powders as per IP.
  - c) Discuss various factors affecting rate of filtration based on “Darcy’s law”.

**F/2019/1943**

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[2]

4. Explain construction, working and applications of any two of the following:  $2 \times 7 = 14$
- a) Continuous hot soxhlet extraction
  - b) Desiccator
  - c) Evaporating pan
  - d) Simple distillation process
5. Attempt any two :  $2 \times 7 = 14$
- a) Classify type of immunity.
  - b) Describe construction, working and application of Autoclave.
  - c) Discuss tests for sterility for parenteral formulations.
6. Differentiate any two of the following:  $2 \times 7 = 14$
- a) Active immunity and Passive immunity.
  - b) Hard gelatin capsule and Soft gelatin capsule
  - c) Evaporation and distillation
  - d) Simple maceration and double maceration
7. Attempt any two:  $2 \times 7 = 14$
- a) Advantage and disadvantage of aerosol system.
  - b) Preparation of diphtheria antitoxin
  - c) Evaluation of capsules
8. Attempt any two :  $2 \times 7 = 14$
- a) Pyrogen test
  - b) Ball mill
  - c) Glass containers



**F/2019/1943**