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Bina Chowdhury Central Library  
Girijananda Chowdhury University  
Hatkhowapara, Azara, Ghy-17

**ER 20-11T**

Roll No. of candidate

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**2023**

**D.Pharm. 1<sup>st</sup> Year End-Term Examination**

**Part I – PHARMACEUTICS**

Full Marks – 80

Time – Three hours

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The figures in the margin indicate full marks  
for the questions.

1. Answer the following (MCQ) : (20 × 1 = 20)

- (i) First edition of pharmacopoeia of India was published in
- (a) 1975
  - (b) 1960
  - (c) 1955
  - (d) 1980
- (ii) The dissolution test has been introduced in \_\_\_\_\_ edition of pharmacopoeia of India.
- (a) 1<sup>st</sup>
  - (b) 3<sup>rd</sup>
  - (c) 5<sup>th</sup>
  - (d) None of the above
- (iii) Air tight containers are also called \_\_\_\_\_ containers.
- (a) Light resistance
  - (b) Hermetic
  - (c) Both (a) and (b)
  - (d) None of the above

[Turn over

- (iv) Dusting powder should be passed through a \_\_\_\_\_ Sieve.
- (a) 20
  - (b) 85
  - (c) 44
  - (d) 100
- (v) Identification test for pharmaceutical emulsion
- (a) Conductivity test
  - (b) Pyrogen test
  - (c) Limit test
  - (d) All of these
- (vi) Working principle of Ball mill
- (a) Impact
  - (b) Attrition
  - (c) Both (a) and (b)
  - (d) None of these
- (vii) Give the name of the mill in which no wear occurs
- (a) Ball Mill
  - (b) Edge runner mill
  - (c) Fluid Energy mill
  - (d) Roller mill
- (viii) Very fine powder are pass through sieve no
- (a) 10
  - (b) 22
  - (c) 44
  - (d) 120
- (ix) In cyclone separator, the powder is separated depending on its
- (a) Particle size
  - (b) Density of particles
  - (c) Particles size and density of particles
  - (d) Shape of the powder

- (x) Unit of viscosity in CGS system
- (a) Poise
  - (b) Centipoise
  - (c) Both (a) and (b)
  - (d) None of these
- (xi) Factors affecting the rate of filtration can be explained by
- (a) Darcy's Law
  - (b) Rutherford model
  - (c) Henry's Law
  - (d) Boltzmann Constant
- (xii) Example of Filter aids
- (a) Cellulose
  - (b) Asbestos
  - (c) Perlite
  - (d) All of these
- (xiii) Rate of filtration is ————— proportional to the viscosity of liquid.
- (a) Directly
  - (b) Inversely
  - (c) Both (a) and (b)
  - (d) None of these
- (xiv) ————— is a process of extraction where drug is kept in contact with menstrum for 15 minutes.
- (a) Infusion
  - (b) Decoction
  - (c) Maceration
  - (d) Percolation

(xv) Fluidised bed dryer method is \_\_\_\_\_ times faster than that of a tray dryer.

- (a) 10
- (b) 5
- (c) 15
- (d) 20

(xvi) The enteric coated tablets are disintegrated in \_\_\_\_\_

- (a) Stomach
- (b) Intestine
- (c) Liver
- (d) Kidney

(xvii) Press coating is done in \_\_\_\_\_ machine

- (a) Drycoata rotary
- (b) Fluidised bed coating
- (c) Pan coating
- (d) None of these

(xviii) \_\_\_\_\_ are used to separate the suspension of a solid in gas.

- (a) Air separator
- (b) Cyclone separator
- (c) Sieving
- (d) None of these

(xix) \_\_\_\_\_ is used to maintain the isotonicity and viscosity of nasal drops similar to nasal secretion.

- (a) Potassium Iodide
- (b) Methyl Cellulose
- (c) Sodium benzoate
- (d) Propylene glycol

(xx) Which test is performed to detect the immunity or susceptibility to diphtheria

- (a) Mantoux test
- (b) Schick test
- (c) LAL test
- (d) All of these

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2. Short answer questions (any TEN questions) : (10 × 3 = 30)

- (a) Write down the advantages and disadvantages of plastic as packaging material.
- (b) Discuss classification of powder as per IP.
- (c) What do you mean by cracking of emulsion? State the various reasons for cracking of emulsions.
- (d) Discuss the ideal qualities of a pharmaceutical suspension.
- (e) Differentiate between quality control and quality assurance.
- (f) Define percolation? Write the limitation of continuous hot percolation process.
- (g) Discuss in short about liposomal drug carrier.
- (h) Differentiate between hard gelatine and soft gelatine capsule.
- (i) What is displacement value? How the displacement value of a drug is calculated.
- (j) Discuss the importance of preservative in pharmaceutical preparation.
- (k) Define positive mixtures. Write the principle and uses of double cone blender.

3. Long answer questions (any SIX questions)

(6 × 5 = 30)

- (a) Write the salient features of first edition of Indian pharmacopoeia.
  - (b) Discuss the principle, construction and working of ball mill with diagram.
  - (c) Write down the theory, construction and working of fluidised bed dryer.
  - (d) Discuss types of ointment bases with essential example.
  - (e) Explain the term "Immunological product". Write the method of preparation of small pos vaccine.
  - (f) Define microencapsulation. Discuss in detail the vairous steps involved in the manufacture of tablet.
  - (g) Write short note on : (Any two) (2.5 + 2.5 = 5)
    - (i) Eye ointment
    - (ii) Effervescent granule
    - (iii) Injectables
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