Dec, 2019

Total No. of printed pages = 7

BP 502 T

Roll No. of candidate | | | | | | | | | | |

2019

B.Pharm 5th Semester End-Term Examination

INDUSTRIAL PHARMACY – I

New Regulation

(w.e.f. 2017–2018)

Full Marks – 75 Time – Three hours

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

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

(i) Which of the following fluorocarbon aerosol propellant has the numerical designation of 114?

(a) Dichlorodifluoromethane

(b) Dichlorotetrafluoroethane

(c) Monochlorodifluoroethane

(d) Monochlorotetrafluoromethane

(ii) Which part of the aerosol container ensures that the aerosol product is delivered in the proper and desired form?

(a) Valve

(b) Propellant

(c) Actuator

(d) Dip tube

(iii) The container for aerosol should be able to withstand pressure as high as

(a) 140-l80 psig at 130°F

(b) 140-l80 psig at 130°C

(c) 140-180 mm of Hg at 130°F

(d) 140-180 mm of Hg at l30°C

(iv) Large volume parenteral formulations are sterilized by

(a) Ionizing radiation

(b) Membrane filtration

(c) Autoclaving

(d) Dry heating

(v) The Bloom strength or gelatin is a measure of the ———— of the cross-linking that occurs between gelatin molecules

(a) Cohesive sirength

(b) Adhesive strength

(c) Hydrogen bond strenġth

(d) Ionic strength

(vi) The iron content of Gelatins used in the manufacture of soft gelatin capsules should not be more than

(a) 1.5 ppm

(b) 15 ppm

(c) 150 ppm

(d) 1500 ppm

(vii) The ratio of dry gelatin and dry glycerin used in the production of hard gelatin capsules are

(a) 0.4:1

(b) 0.6:1

(c) 0.8:1

(d) 1:1

(viii) The drugs belonging to BCS class III has

(a) Low water solubility and high permeability

(b) High water solubility and low permeability

(c) Low solubility in oils and high permeability

(d) High solubility in oil and low permeability

(ix) The partition coefficient is defined as the ratio of the un-ionized drug distributed between the _____ and _____ phases at equilibrium.

(a) Organic and aqueous

(b) Aqueous and organic

(c) Inorganic and aqueous

(d) Aqueous and inorganic

(x) When the compressibility of a pharmaceutical powder mixture is 18-21%, the Flowability of the powder is

(a) Excellent

(b) Good

(c) Fair-passable

(d) Poor

(xi) If the pKa value of a drug is 30, the drug will be better absorbed from

(a) Stomach

(b) Duodenum

(c) Ileum

(d) Colon

(xii) Aerosil is

(a) Colloidal Anhydrous Silica

(b) Fused calcium trisilicate

(c) Fused calcium carbonate

(d) Iron oxide

(xiii) Selenium sulphide is added to shampoos as

(a) Conditioning agent

(b) Anti-dandruff agent

(c) Thickening agent

(d) Preservative

(xiv) Elixirs are sweet aromatic preparations containing _____ ethyl alcohol.

(a) 5%

(b) 10%

(c) 5–15%

(d) 4–40%

(xv) Inadequate spreading of the coating solution before drying causes

(a) Sticking

(b) Picking

(c) Orange-Peel Effects

(d) Blistering

(xvi) If the lower punch of a tablet compression machine has a nominal barrel diameter of 19.05 mm, head diameter of 25.40 mm, and length of 133.35 mm, it is a

(a) BB tooling

(b) B tooting

(c) D tooling

(d) None of the above

(xvii) Sterile pharmaceutical powder dosage forms are preferably sterilized by

(a) Dry heat

(b) Moist heat

(c) Ionizing radiation

(d) Combination of all of the above

(xviii)_____surfactants are mostly used as principal surfactant in shampoos.

(a) Cationic

(b) Anionic

(c) Nonionic

(d) Amphoteric

(xix) Capsule size 1 has an approximate volume of

(a) 0.75 ml

(b) 0.55 ml

(c) 0.4 ml

(d) 0.3 ml

(xx) If a drug has a logP value of(-) 2. the drug is

(a) Oil-soluble

(b) Water-soluble

(c) Two times more soluble in oil than water

(d) Two times more soluble in water than oil

2. Answer any SEVEN questions $(7 \times 5 = 35)$

(a) What are the goals and objectives of preformulation studies?

(b) Explain the BCS classification of drugs & its significance in preformulation studies.

(c) Enlist the quality control tests performed on tablet dosage forms.

(d) Write a note on tablet compression and processing problems arid ways to prevent them from occurring.

(e) Explain the production procedure of hard gelatin capsule shells.

(f) What is the pelletization process? Explain.

(g) Write a short note on the containers and closures used in packaging of parenteral products.

(h) How ophthalmic preparations are evaluated?

(i) Shortly explain the components of the aerosol package.

3. Answer any TWO questions $(2 \times 10 = 20)$

(a) Explain the different types of excipients used in the formulation of a tablet dosage form. Write a note on the tablet coating problems and ways to rectify them.

(b) Explain the soft gelatin capsules manufacturing process. What are the parameters that are evaluated after hard gelatin capsules are formulated?

(c) Write a short note on (any *two*)

(i) Polymorphism

(ii) Vanishing cream

(iii) Eye ointments