# Bachelor of Pharmacy Examination, 2018 4<sup>th</sup>Year, 2<sup>nd</sup> Semester Industrial Pharmacy (Elective – II)

Time: Three Hours Full Marks: 100

# Answer any five questions taking at least one from each group.

#### Group - A

- 1. a) Write the procedures of depyrogenation from different pharmaceuticals. What is Horse Shoe Crab? Mention the permissible limit of pyrogen in parenterals as per FDA.
  - b) What is resveratrol? Point out its importance in therapy.

8+2+4+6=20

- 2. a) Define redox potential of Pharmaceuticals. Write the importance of hermetically sealed packaging of pharmaceuticals.
  - b) What is chromicized catgut? Define sterile air with its importance in pharmaceutical industry. What is DOP test?

4+6+4+4+2 = 20

Ref. No.: Ex/PHARM/T/425A/2018

# **B. PHARMACY FOURTH YEAR SECOND SEMESTER EXAM 2018**

#### Subject: INDUSTRIAL PHARMACY-II

Time: Three Hours Full Marks: 100

### Answer any five questions taking at least one from each group

**3**. Write down the standardization methods of various herbal formulations. Write down the monograph guidelines by World Health Organization for quality control of herbal drugs.

$$10 + 10 = 20$$

- Write notes on
  - a. Restriction Enzymes
  - b. Cloning Vector
  - c. Applications of recombinant DNA technology

$$4 + 4 + 12 = 20$$

**5.** Write down the methods of estimation of pesticide residue, alpha toxin, extractive values, ash values. What are the major problems associated with raw herbal materials? Explain the major attributes of GMP schedule T for herbal drugs.

$$4+4+3+3+3+3=20$$

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Name of the Examinations: B.PHARMACY FOURTH YEAR SECOND SEMESTER-2018

Subject: INDUSTRIAL PHARMACY-II Time: THREE HOURS Full Marks: 100

## GROUP - C

Answer any five questions taking at least one from each group

Q. 6 a)What is meant by stability indicating assay method?

b) What are the forced degradation studies? What information you can derive from this study? 6+2

c)What are the climatic zones designated as per ICH guidelines? What are the stability studies protocol according to this guidelines?

Q.7.a) What are the factors that govern the rate of reaction in formulation kinetics? Derive mathematical relationships for the factors wherever applicable.

b)What are the formulation factors to be incorporated for a stable , efficacious paediatric multivitamin formulation and an oil injection containing androgenic hormone. 6+6

- Q.8.a) Explain the following terms with mathematical equations:
  - i) Crushing Strength ii) Consolidation Process iii) Elastic and Plastic deformation iv)Porosity
  - v) Flowability and Compressibility 15
  - b) What are the methods for tablet compression and granule filling in hard gelatin capsules? 5