MAY 2011

[KY 341] **Sub. Code: 2902**

M.PHARM. DEGREE EXAMINATION
(Regulations 2010)

Candidates admitted from 2010-2011 onwards

FIRST YEAR

Branch I – PHARMACEUTICS

Paper II – INDUSTRIAL PHARMACY

Q.P. Code : 262902

Time : Three hours **Maximum : 100 marks**

Answer All questions

I. Essay Questions : **(6 x 10 = 60)**

1. Discuss in detail the formulation and evaluation of Parenteral products.
2. Discuss about Production management in Pharma Industries.
3. Describe Plastic containers used in packing of Pharmaceutical preparations. Add a note on evaluation of plastic containers.
4. Explain GMP guidelines for Sterile preparations.
5. Discuss about the Heat sterilization methods.
6. Explain in detail the filling of Hard gelatin capsules. Add a note on evaluation of capsules.

II. Write Short Notes : **(8 x 5 = 40)**

1. Objectives and Defects in Tablet coating.
2. Multivitamin Products.
3. How can shelf life be determined by accelerated stability method?
4. Optimization parameters.
5. Multiple Emulsions.
6. Industrial hazards and preventive measures due to fire accident.
7. Formulation of Dry syrup with example.
8. TRIPS and WTO.

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October 2011

[KZ 341] **Sub. Code: 2902**

M.PHARM. DEGREE EXAMINATION

FIRST YEAR

BRANCH I – PHARMACEUTICS

PAPER II – INDUSTRIAL PHARMACY

Q.P. Code : 262902

Time : 3 hours **Maximum : 100 marks**

(180 Min)

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. What is Optimization? Discuss the various optimization techniques in formulation and processing.	17	40	20
2. Explain in detail about the significance of Pilot plant scale up study and large scale manufacturing techniques of Injections and Liquid orals.	17	40	20
II. Write notes on :			
1. Production Management.	4	10	6
2. Physics of tablet compression.	4	10	6
3. Techniques for the study of crystal properties and polymorphism.	4	10	6
4. Pharmaceutical aspects related to GATT and TRIPS.	4	10	6
5. Physicochemical and biological factors affecting stability of drugs.	4	10	6
6. Determination of shelf life by Accelerated Stability Testing.	4	10	6
7. Evaluation of plastic containers used in packaging of pharmaceutical preparation.	4	10	6
8. Industrial hazards and preventive measures due to fire accident.	4	10	6
9. Quality Assurance.	4	10	6
10. Multivitamin Products.	4	10	6

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[LA 341] **MAY 2012** **Sub. Code: 2902**

M.PHARM. DEGREE EXAMINATION

FIRST YEAR

BRANCH I – PHARMACEUTICS

PAPER II – INDUSTRIAL PHARMACY

Q.P. Code : 262902

Time: 3 hours **Maximum: 100 marks**
(180 Min)

Answer ALL questions in the same order.

I. Elaborate on:	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Discuss in detail about GMP consideration and material management for the Pharmaceutical Industry.	17	40	20
2. Differentiate Consolidation and Compression with definitions. Write a detailed note on the distribution and measurement of forces and physics of Tablets.	17	40	20
II. Write notes on:			
1. Thermosettings.	4	10	6
2. World Trade Organization.	4	10	6
3. Describe briefly on search methods used in optimization.	4	10	6
4. Techniques used to find out the crystal properties.	4	10	6
5. Define Sterilization and briefly explain types of sterilization.	4	10	6
6. Formulation of dry syrup with example.	4	10	6
7. Describe about the preventive measures due to electrical hazards.	4	10	6
8. ISO 9000 series.	4	10	6
9. Blood Products.	4	10	6
10. Pilot plant scale up preparation for liquid orals.	4	10	6

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[LB 341] **OCTOBER 2012** **Sub. Code: 2902**

M.PHARM. DEGREE EXAMS

FIRST YEAR

BRANCH I – PHARMACEUTICS

PAPER II – INDUSTRIAL PHARMACY

Q.P. Code : 262902

Time : 3 hours **Maximum : 100 marks**

(180 Min)

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Explain the role of various Physico-Chemical characteristics of a new drug molecule in preformulation studies.	17	40	20
2. Discuss in detail about different types of Pharmaceutical containers and closures including their merits and demerits.	17	40	20

II. Write notes on :

1. Material management in Pharma Industry.	4	10	6
2. Effect of particle size, moisture content and lubrication on strength of Tablets.	4	10	6
3. Intellectual Property Rights.	4	10	6
4. Significance of Pilot plant scale up study.	4	10	6
5. ISO 9000 series.	4	10	6
6. Optimization methods.	4	10	6
7. Multiple Emulsion.	4	10	6
8. Sterilization of various Injectables.	4	10	6
9. Overages and ICH guidelines.	4	10	6
10. Hazards and safety measures due to mechanical and electrical equipments used in Pharma Industry.	4	10	6

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[LC 341] **APRIL 2013** **Sub. Code: 2902**

M.PHARM. DEGREE EXAMS
FIRST YEAR
BRANCH I – PHARMACEUTICS
PAPER II – INDUSTRIAL PHARMACY
Q.P. Code : 262902

Time : 3 hours **Maximum : 100 marks**

I. Elaborate on : **(2x20=40)**

1. Define Pharmaceutical Packing? What are the salientfeatures of packing material? Discuss about the packing of glass container and Plastic containers.

2. Define stability. What are the different types of stability and explain briefly about any two methods.

II. Write notes on : **(10x6=60)**

1. Preformulation study on polymorphism.
2. Differentiate moist heat and dry heat sterilization.
3. Patent Laws.
4. Prediction of shelf life by accelerated stability method.
5. Chemical Hazards and their preventive measures.
6. Physics of Tablets.
7. Process Validation.
8. Define Optimization and explain about Lagrangian method.
9. Describe about the production planning and sales forecasting.
10. Multivitamin Products.

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[LD 341] **OCTOBER 2013** **Sub. Code: 2902**

M.PHARM. DEGREE EXAMINATIONS

FIRST YEAR

BRANCH I – PHARMACEUTICS

PAPER II – INDUSTRIAL PHARMACY

Q.P. Code : 262902

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions in the same order.

I. Elaborate on : **(2 x 20 = 40)**

1. a) Explain production planning and control in Pharmaceutical Industry.

   b) Explain in detail about physicochemical factors affecting stability of drugs.

2. Discuss in detail about different types of Pharmaceutical containers and closures including their merits and demerits.

II. Write notes on : **(10 x 6 = 60)**

1. Material management in Pharma Industry.
2. Effect of particle size, moisture content and lubrication on strength of Tablets.
3. Intellectual Property Rights
4. Significance of Pilot plant scale up study.
5. ISO 9000 series.
6. Optimization methods.
7. Multiple Emulsions.
8. Sterilization of various Injectables.
9. Overages and ICH guidelines.
10. Hazards and safety measures due to mechanical and electrical equipments used in Pharma Industry.

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[LE 341] **APRIL 2014** **Sub. Code: 2902**

M.PHARM. DEGREE EXAMS
FIRST YEAR
BRANCH I – PHARMACEUTICS
PAPER II – INDUSTRIAL PHARMACY
Q.P. Code : 262902

Time : 3 hours **Maximum : 100 marks**

I. Elaborate on : **(2x20=40)**

1. Write the significance of pilot plant scale up study. Discuss about the large scale manufacturing techniques of tablets & liquid orals.

2. Explain the methods to find out degradation pathways. Write in detail about determination of shelf life by accelerated stability testing.

II. Write notes on : **(10x6=60)**

1. Techniques for the study of inventory management.
2. Importance of solublization and surfactants in preformulation studies.
3. Measurement of compressional forces within the powder mass undergoing compression.
4. Explain the optimization methods.
5. Sterilization of blood products.
6. Effect of particle size, moisture content and lubrication on strength of tablet.
7. Selection and evaluation of packaging materials.
8. Industrial hazards and preventive measures due to fire accident.
9. Process validation.
10. GATT and TRIPS.

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[LF 341] **OCTOBER 2014** **Sub. Code: 2902**

M.PHARM. DEGREE EXAMINATION
FIRST YEAR
BRANCH I – PHARMACEUTICS
PAPER II – INDUSTRIAL PHARMACY

Q.P. Code : 262902

Time : Three hours **Maximum : 100 marks**

I. Elaborate on: **(2 x 20 = 40)**

1. What is the pharmaceutical packaging and what are the desirable features of packaging materials? Discuss about Rubber as a packaging material.

2. Discuss about the pilot plant scale up techniques of ophthalmic products.

II. Write notes on: **(10 x 6 = 60)**

1. Particle size in preformulation
2. Surfactants and its importance
3. WTO
4. Classical optimization
5. Sterilization of blood products
6. Method to find out degradation pathways
7. ISO 9000 series
8. Inventory management
9. Multivitamin products
10. Industrial hazards and preventive measures due to electrical equipments.

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