



Faculty of Health Sciences
Diploma in Pharmaceutical and Cosmetic Sciences
DPC 1133 Anatomy and Physiology I
1st year 1st semester
Special Repeat Examination- SEQ Examination
1st Batch & 2nd Batch

INDEX NUMBER:

Date : 27th May 2024
Time : 9.00 a.m. - 12.00 p.m. (Three hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of SIX questions.
Answer ALL questions.
You should write the answers in black or blue ink.

Question 1 (100 marks)

1.1 Write one main function of following organs.

1.1.1 Smooth endoplasmic reticulum (15 marks)

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1.1.2 Ribosome (15 marks)

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1.1.3 Golgi apparatus (15 marks)

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1.1.4 Lysosome

(15 marks)

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1.2 List **five (05)** general characters of an epithelial tissue.

(20 marks)

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1.3 Briefly describe structural diversity of animal cells, based on their functions, by giving **three (03)** examples. (20 marks)

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Question 2

(100 marks)

2.1 Write short notes on followings.

2.1.1 True Ribs

(25 marks)

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2.1.2 Respiratory epithelium

(25 marks)

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2.2 Briefly describe following process of pulmonary ventilation.

2.2.1 Inhalation

(25 marks)

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2.2.2 Exhalation

(25 marks)

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Question 3

(100 marks)

3.1 Write a short not on pericardium.

(25 marks)

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3.2 “Myocardium in left ventricle is thicker than the wall of right ventricle”. What is the reason for that? (25 marks)

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3.3 Outline the functions of the following blood cells.

3.3.1 Red blood cells (15 marks)

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3.3.2 White blood cells (15 marks)

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3.4 List the factors effecting cardiac output. (20 marks)

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Question 4

(100 marks)

4.1 List different parts of small intestine and large intestine.

(20 marks)

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4.2 List the constituents in gastric juice.

(20 marks)

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4.3 List the functions of saliva.

(20 marks)

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4.4 Briefly describe the structure of biliary duct system. (20 marks)

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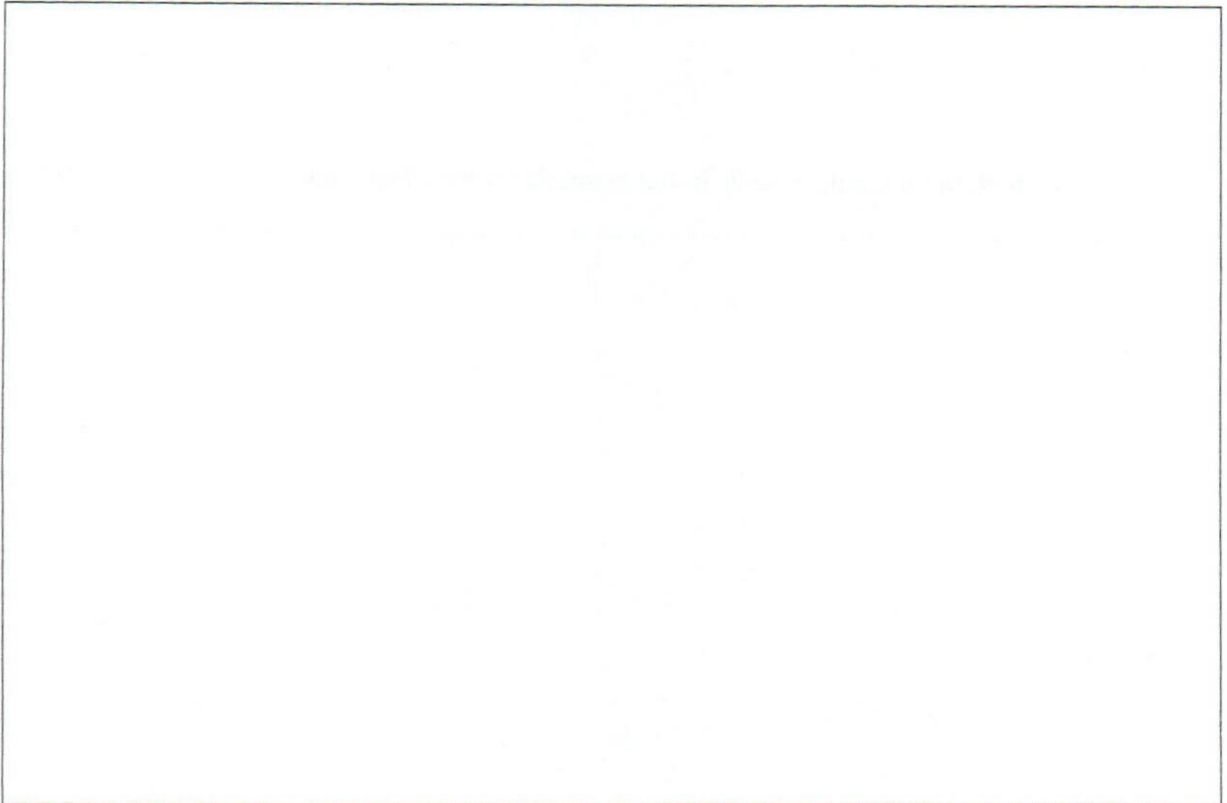
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4.5 Show the nine regions in the abdominal region by using a labeled diagram. (20 marks)



Question 5

(100 marks)

5.1 List the components of blood.

(25 marks)

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5.2 What is major difference between plasma and serum?

(25 marks)

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5.3 Show body fluid compartments in the human body by a flow chart.

(25 marks)



5.4 Briefly Describe the function of body water.

(25 marks)

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Question 6

(100 marks)

6.1 List the bones in human upper limb.

(20 marks)

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6.2 Write four differences between right and left bronchi.

(20 marks)

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6.3 Outline five (05) main functions of liver. (20 marks)

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6.4 List the major branches of three segments of axillary artery defined by the pectoralis minor muscle. (20 marks)

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6.5 Define the term tidal volume in respiration. (20 marks)

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Faculty of Health Sciences
Diploma in Pharmaceutical & Cosmetic Sciences
DPC 1143 – Pharmaceutical and Cosmeceutical Unit Operations
Batch – 02 - 1st year 1st semester - End Semester (resit) - SEQ Examination

Date : 25th of May 2024
Time : 1.00 pm – 4.00 pm (Three hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions.
- Answer **ALL** questions.
- Write the answers legibly in black or blue ink.

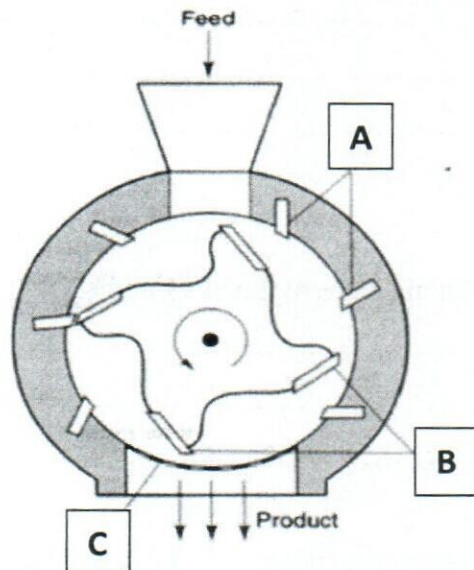
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Question 01 (100 marks)

1.1 List **three (03)** size reduction techniques used in pharmaceutical industry. (30 marks)

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1.2 Figure shows a image of a cutter mill. Name the parts A, B,C. (30 marks)



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2.2 List the **two (02)** types of tablet press machines available. (20 marks)

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2.3 State **two (02)** differences between the machines you mentioned in 2.2. (30 marks)

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2.4 List **five (05)** main parts commonly found in rotary presses. (30 marks)

Question 03 (100 marks)

3.1 What is tablet coating? (20 marks)

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3.2. State the **three (03)** types of tablet coating. (30 marks)

3.3 List **four (04)** importances of tablet coating. (20 marks)

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3.4 Illustrate the principle of film coating through a flowchart. (30 marks)

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Question 04 (100 marks)

4.1 List **two (02)** issues related to powders. (20 marks)

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4.2. State **three (03)** main methods used for powder conveying in the pharmaceutical industry. (30 marks)

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Question 05

(100 marks)

5.1 Mention the three (03) types of mixtures. (30 marks)

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5.2 Write a short description on the ways of minimizing segregation. (40 marks)

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5.3 List the main steps of extrusion and spheronization process. (30 marks)

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Faculty of Health Sciences
Diploma in Pharmaceutical & Cosmetic Sciences
DPC 1143 – Introduction to Pharmaceutical & Cosmeceutical Industry
Batch 02 - 1st year 1st semester - End Semester (Resit) - SEQ Examination

Date : 19th of May 2024
Time : 9.00 am – 12.00 noon (Three hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions.
- Answer **ALL** questions.
- Write the answers legibly in black or blue ink.

Question 01 **(100 marks)**

1.1 Define the term “dosage forms”. (20 marks)

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1.2 State the types of single unit solid dosage forms. (10 marks)

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1.3 List **three (03)** advantages and **two (02)** disadvantages of solid dosage forms. (25 marks)

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1.4 List the **four (04)** types of bases in semisolid dosage forms. (20 marks)

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1.5 Briefly describe **two (02)** methods used to manufacture semi-solid dosage forms. (25 marks)

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Question 02 (100 marks)

2.1 List **three (03)** different types of alternative medicine used in Sri Lanka. (15 marks)

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2.2 State **three (03)** differences between conventional and alternative medicines. (15 marks)

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2.3 Write **five (05)** examples for alternative medicines. (20 marks)

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2.4 What is the importance of personality development? (25 marks)

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2.5 Write a descriptive note on the ways to improve commitment to work. (25 marks)

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Question 03 (100 marks)

3.1 List the **three (03)** types of gaseous dosage forms. (15 marks)

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3.2 State the **two (02)** types of inhalations. (20 marks)

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3.3 Draw a diagram of a Dry Powder Inhaler (DPI) and label the main parts. (25 marks)

3.4 Write a short note on cold filling manufacturing process of gaseous dosage forms. (40 marks)

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Question 04 (100 marks)

4.1 Define the term 'Monophasic liquid dosage form. (25 marks)

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4.2 What are the phases contain in biphasic liquid dosage forms? (25 marks)

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4.3 Differentiate between suspensions and emulsions. (25 marks)

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4.4 Write a short note on Small Volume Parenterals (SVP). (25 marks)

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Question 05 (100 marks)

5.1 State the **three (03)** items regulated by National Medicines Regulatory Authority. (15 marks)

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5.2 Write **two (02)** ex-officio members in the National Medicines Regulatory Authority. (10 marks)

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5.3 List **four (04)** functions of the National Medicines Quality Assurance Laboratory. (20 marks)

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5.4 What are the main functions of the National Dangerous Drugs Control Board? (25 marks)

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5.5 Write **five (05)** functions of National Medicines Regulatory Authority. (30 marks)

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Question 06 (100 marks)

6.1 What is an over-the-counter medicine (OTC)? (30 marks)

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6.2 Write **five (05)** examples for common OTC medicines. (30 marks)

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6.3 Briefly describe the disadvantages of taking OTC medicines. (40 marks)

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1.2 Write short notes on following.

1.2.1 Delta nomenclature

(30 marks)

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1.2.2 Omega nomenclature

(30 marks)

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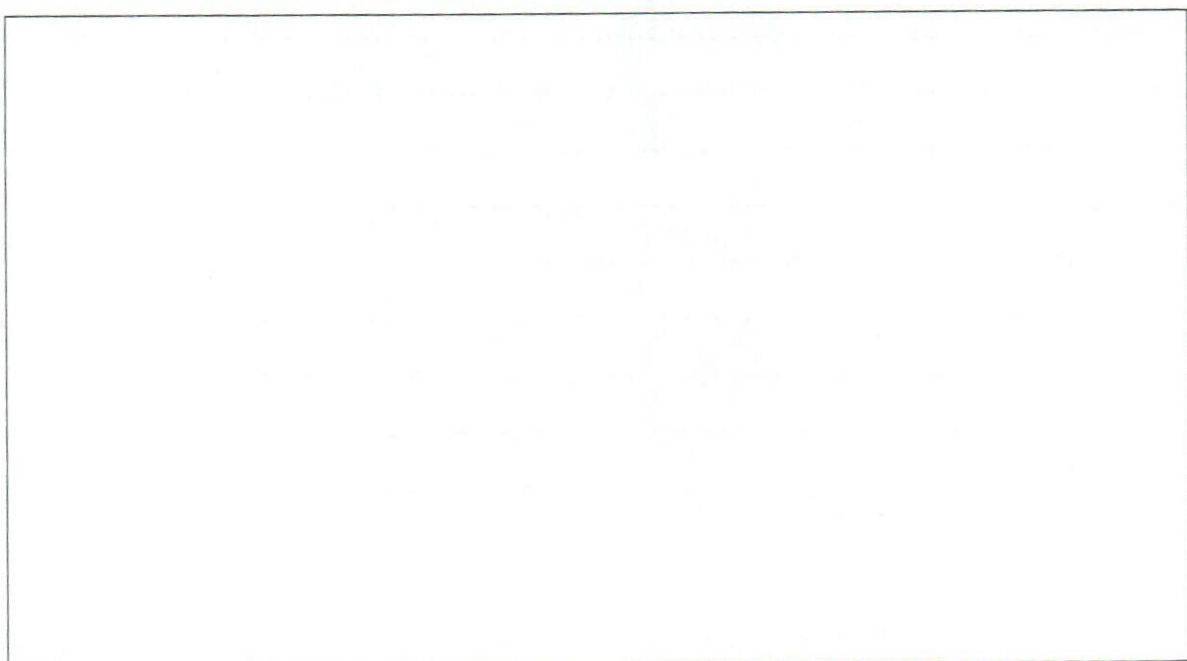
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QUESTION 02

(100 marks)

2.1 Illustrate a basic structure of a building block of DNA.

(40 marks)



2.2. List main characteristic features of DNA double helix. (60 marks)

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QUESTION 03 (100 marks)

3.1. Mention five (05) main functions of proteins. (40 marks)

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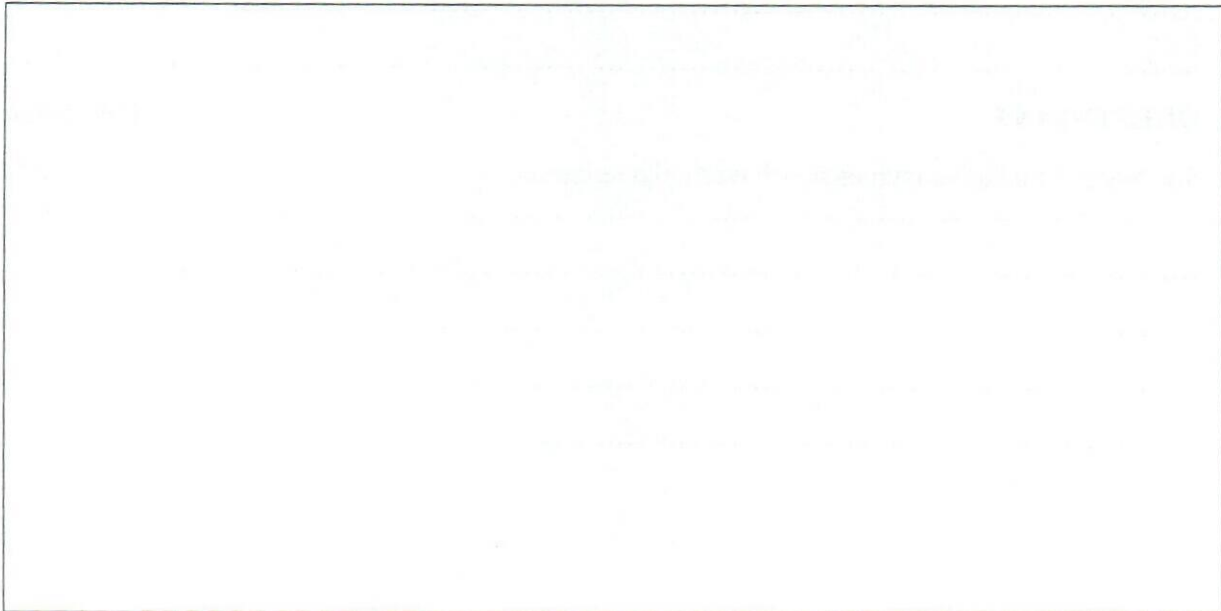
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3.2. Draw a flow chart to denote the digestion of proteins. (60 marks)



QUESTION 04

(100 marks)

4.1. Classify the following carbohydrates based on the functional group. (45 marks)

4.1.1. Fructose
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4.1.2. Sedoheptulose
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4.1.3. Erythrose
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4.2. Define reducing and non-reducing sugars. (25 marks)

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4.3. Briefly describe the importance of gluconeogenesis. (30 marks)

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QUESTION 05

(100 marks)

5.1. State three (03) enzymes involved in glycogenesis. (30 marks)

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6.2. State five (05) factors which aid to maintain the fluidity of the plasma membrane. (50 marks)

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6.3. Differentiate between endocytosis and exocytosis. (20 marks)

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Faculty of Health Sciences
Diploma in Pharmaceutical & Cosmetic Sciences
DPC 1143 – Introduction to Pharmaceutical & Cosmeceutical Industry
Batch 02 - 1st year 1st semester - End Semester (Resit) - Assignment

Date : 18th of May 2024
Time : 1.30 pm – 2.30 pm (One hour)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **TWO** questions.
- Answer **ALL** questions.
- You should write legibly in black or blue ink.
- You are not allowed to take out the examination papers.

Question 01**(100 marks)**

1.1. Define the following.

(30 marks)

1.1.1 Elixirs

1.1.2 Lotions

1.2. Give **one (01)** example per each of the above dosage forms.**(10 marks)**

1.3. The ingredients required to prepare an elixir are given below.

Ingredients	Quantities
Compound Orange Spirit	12 ml
Syrup	375 ml
Alcohol	238 ml
Purified Water, each q.s. to make	1000 ml

1.3.1. State the function of ingredients given below in an elixir.

(20 marks)

a) Compound orange spirit

b) Alcohol

1.3.2. Prepare a label for the elixir according to the provided prescription below. **(40 marks)**

Patient: Ms. Sadani

Age: 20 years

Rx:

Directions: m.d.u

Mitte: 10 ml

Question 02**(100 marks)**

2.1 Justify: "Liquid dosage forms are more useful than solid dosage forms in many situations"

(70 marks)

2.2 Explain an example scenario where the above statement holds true.

(30 marks)