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**PP—02—2023**

**FACULTY OF SCIENCE**

**B. Pharm. (Fourth Year) (Seventh Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2023**

**INSTRUMENTAL METHODS OF ANALYSIS**

**BP701T**

**(Tuesday, 26-12-2023)**

**Time : 2.00 p.m. to 5.00 p.m.**

*Time—3 Hours*

*Maximum Marks—75*

*N.B. :— (i) All questions are compulsory.*

*(ii) Answer to the point only.*

*(iii) Figures to the right indicate full marks.*

1. Solve the following :

2×10=20

(a) State Hooke's law.

(b) Write limitations of flame photometry.

(c) Write characteristics of adsorbent used in column chromatography.

(d) Define singlet state and triplet state.

(e) How to prepare 4000 NTU.

(f) Why silica gel used in thin layer chromatography ?

(g) Why region below 200 nm is also called as Vacuum UV region ?

P.T.O.

- (h) What is Radial Chromatography ?
- (i) Sketch a neat labelled diagram of atomic absorption spectroscopy.
- (j) Which filter paper used in paper electrophoresis ?
2. Solve any *two* of the following : 2×10=20
- (a) Write instrumentation of UV-Visible spectroscopy.
- (b) What is C<sub>18</sub> column ? Explain detectors used in HPLC.
- (c) Write advantages and limitations of affinity chromatography.
3. Solve any *seven* of the following : 7×5=35
- (a) Write errors in Flame photometry.
- (b) How will you activate TLC plates ?
- (c) Write requirements in molecular structure for exhibiting fluorogenic activity.
- (d) Write principle and factors affecting nephelometry and turbidimetry.
- (e) Describe method of sampling of solid, liquid and gases in IR spectroscopy.
- (f) Write disadvantages of Atomic Absorption Spectroscopy.
- (g) Write applications of electrophoresis.
- (h) Give reasons for deviations from Beer's law.
- (i) Write advantages and disadvantages of AID in gas chromatography.

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**PP—06—2023**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**B. Pharm. (Seventh Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2023**

**INDUSTRIAL PHARMACY**

**Paper-II (BP-702T)**

**(Thursday, 28-12-2023)**

**Time : 2.00 p.m. to 5.00 p.m.**

**Time—3 Hours**

**Maximum Marks—75**

**N.B. :— (i) All questions are compulsory.**

**(ii) Figures to the right indicate full marks.**

**(iii) Answer to the point only.**

**1. Solve all of the following :**

**10×2=20**

**(a) Give the functions of Pilot Plant.**

**(b) What do you mean by Technology Transfer ?**

**(c) Define Regulation and Regulatory affairs.**

**(d) Enlist responsibilities of drug development team.**

**(e) Define the terms :**

**(i) Quality control**

**(ii) Quality assurance.**

**(f) Enlist any four responsibilities of CDSCO.**

**(g) What is master manufacturing procedure ?**

**P.T.O.**

- (h) Define Sending unit and Receiving unit.
- (i) What do you mean by Investigator's Brochure ?
- (j) Enlist any four quality certifications.
2. Solve any two of the following : 2×10=20
- (a) Discuss Pilot Plant scale up consideration for solid dosage form.
- (b) Explain in detail about Validation.
- (c) Describe general consideration of IND application.
3. Solve any seven of the following : 7×5=35
- (a) Explain checklist for Pharmaceutical Scale up.
- (b) Discuss Technology Transfer Protocol.
- (c) Explain importance of RA. *Affaire*
- (d) Define B.E. Discuss its study methods.
- (e) Write a note on TQM.
- (f) Discuss drug approval process in India.
- (g) Describe SUPAC guidelines in brief.
- (h) Explain the six-sigma concept.
- (i) Discuss qualities and key duties of R.A. Officer.

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**PP—10—2023**

**FACULTY OF PHARMACEUTICAL SCIENCE**

**B.Pharm. (Final Year) (Seventh Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2023**

**PHARMACY PRACTICE**

**Paper—(BP-703T)**

**(Saturday, 30-12-2023)**

**Time : 2.00 p.m. to 5.00 p.m.**

**Time—3 Hours**

**Maximum Marks—75**

- N.B. :—**
- (i) All questions are compulsory.
  - (ii) Draw the diagrams wherever necessary.
  - (iii) Figures to the right indicate full marks.

1. Solve the following : 10×2=20
- (a) What do you mean by Medication Adherence ?
  - (b) Write the advantages of planning of budget.
  - (c) Write the need of therapeutic drug monitoring.
  - (d) Enlist the different types of ambulatory patient services.
  - (e) How to manage ADR in community pharmacy ?
  - (f) What are the advantages and disadvantages of hospital pharmacy ?
  - (g) Define pharmacy and therapeutic committee.
  - (h) Draw a typical layout of hospital pharmacy.
  - (i) Write about primary care hospital.
  - (j) List out the supporting services required in a hospital.

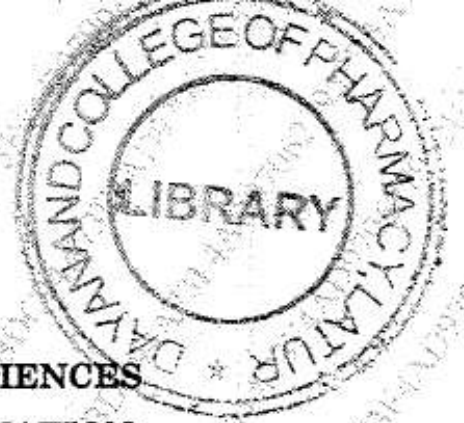
**P.T.O.**

2. Solve the following questions (any two) : 2×10=20

- (a) Classify microencapsulation techniques. Explain air suspension technique.
- (b) Enlist approaches of Gastroretentive drug delivery system and describe in detail floating drug delivery system.
- (c) Explain different formulation approaches of transdermal drug delivery system.

3. Solve the following questions (any seven) : 5×7=35

- (a) Enumerate the factors affecting permeation of drug through the skin.
- (b) Explain in detail about ALZET osmotic pump.
- (c) Classify the polymers used to modify the drug release.
- (d) Write in detail about Dry powder inhalers.
- (e) Discuss briefly about Intrauterine drug delivery systems.
- (f) State various methods to prepare Liposomes.
- (g) How will you evaluate Buccal drug delivery system ?
- (h) Write in detail about types of ocusert.
- (i) Explain basic components of transdermal patches.



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**PP—14—2023**

**FACULTY OF PHARMACEUTICAL SCIENCES**

**B.Pharm. (Seventh Semester) EXAMINATION**

**JANUARY, 2024**

**NOVEL DRUG DELIVERY SYSTEM**

**Paper—(BP-704T)**

**(Tuesday, 02-01-2024)**

**Time : 2.00 p.m. to 5.00 p.m.**

*Time—3 Hours*

*Maximum Marks—75*

*N.B. ;— (i) Figures to the right indicate full marks.*

*(ii) Draw neat diagram wherever necessary.*

*(iii) Assume suitable data if necessary stating it clearly.*

1. Solve the following questions : 10×2=20

- (a) Discuss criterias for selection of drug candidate for CDDS.
- (b) Enlist the theories of Mucoadhesion.
- (c) Define penetration enhancer with examples.
- (d) Define Gastroretentive drug delivery system and write its two advantages.
- (e) Define Transdermal drug delivery system with example.
- (f) What are barriers of ocular drug delivery system ?
- (g) What is SODI ?
- (h) Enlist advantages of implantable drug delivery system.
- (i) Enlist types of Nebulisers.
- (j) Define Polymers with examples.

P.T.O.

2. Solve the following questions (any *two*) : 2×10=20

- (a) Classify microencapsulation techniques. Explain air suspension technique.
- (b) Enlist approaches of Gastroretentive drug delivery system and describe in detail floating drug delivery system.
- (c) Explain different formulation approaches of transdermal drug delivery system.

3. Solve the following questions (any *seven*) : 5×7=35

- (a) Enumerate the factors affecting permeation of drug through the skin.
- (b) Explain in detail about ALZET osmotic pump.
- (c) Classify the polymers used to modify the drug release.
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- (f) State various methods to prepare Liposomes.
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- (i) Explain basic components of transdermal patches.