

Duration : 2½ Hours

Max Marks : 60

- N.B:** 1. All question carry equal marks.
 2. Figures to the right indicate full marks.
 3. Use of non-programmable calculator is allowed.

- Q.1** **A.** Attempt any TWO of the following: **08**
 i. Write a short note on FDA
 ii. Define drug. Explain the classification of drugs based on mode of action
 iii. What is a pharmaceutical formulation? Describe any one type of formulation
 iv. How are impurities introduced in raw materials?
- B.** Attempt any ONE of the following: **04**
 i. What are Pharmacopeia? Give its importance.
 ii. State the advantages and disadvantages of topical dosage forms.
- Q.2** **A.** Attempt any TWO of the following: **08**
 i. Write a short note on Impurity profiling of drugs
 ii. Explain the term novel drug delivery. Give any four examples of same.
 iii. Describe the use of IR in analysis of drugs and finished products
 iv. Explain the principle and procedure for limit test for chloride
- B.** Attempt any ONE of the following: **04**
 i. What are disintegration test? Give its significance.
 ii. Explain the term bioequivalence and give its importance.
- Q.3** **A.** Attempt any TWO of the following: **08**
 i. Describe the method for detection of blood stains in forensics
 ii. Explain the statement: DNA profiling is a very important part of forensic studies
 iii. How is presence of Arsenic detected in post mortem sample?
 iv. What are stimulants ? Explain the test for identification of Amphetamine.
- B.** Attempt any ONE of the following: **04**
 i. Write a short note on analytical toxicology.
 ii. How are traces of abused drugs detected in urine of addicts?

- Q.4** **A.** **Attempt any TWO of the following:** **08**
- i.** **Define deodorants. Describe the estimation of Aluminium in deodorants.**
 - ii.** **Explain the composition of hair tonic. Describe the estimation of pyrogallol in hair tonic**
 - iii.** **Write a short note on estimation of Boric acid in face powder**
 - iv.** **What are creams? Give the main differences between creams and lotions.**
- B** **Attempt any ONE of the following:** **04**
- i.** **Explain the method for estimation of dithioglycollic acid in hair tonics.**
 - ii.** **Which are the different additives used in cosmetics? Explain the role of any two.**
- Q.5** **Attempt ANY FOUR of the following** **12**
- a.** **What are excipients? Give examples.**
 - b.** **Explain the term parenteral dosage .Give the advantages of this dosage form**
 - c.** **What is proximate analysis? Give any two examples.**
 - d.** **Explain how solubility tests are important for characterisation of a pharmaceutical product.**
 - e.** **Describe the test for detection of Insecticides and pesticides in stomach wash**
 - f.** **Explain the role of analytical Chemistry in Forensics**
 - g.** **What are cosmetics? Explain the role of cosmetics.**
 - h.** **Give the composition of lipstick. Add a note of role of any two components**
-