

(2 ½ Hours)

N.B.: (1) All questions are compulsory.

(2) Use of log table or nonprogrammable calculator is permitted.

Q.1 (a) Attempt any two of the following

- (i) Give the classification of drugs based on their therapeutic action.
- (ii) Explain with examples different types of excipients present in tablets.
- (iii) What is meant by parenteral route of drug administration? Discuss different parenteral routes of drug administration.
- (iv) How are impurities introduced in pharmaceutical preparation during storage.

(b) Give methods which are commonly used for testing quality of finished products.

OR

(b) Describe various dosage forms of orally administered drug.

Q.2 (a) Attempt any two of the following :

- (i) How is HPLC method used for reaction monitoring and for impurity profiling of a drug?
- (ii) What are commonly found acid radical impurities? Describe the limit tests carried out to identify them.
- (iii) Explain the need for carrying out in-vitro dissolution test of a tablet. How is it carried out?
- (iv) Discuss the pharmacokinetic parameters which are used to determine bioavailability of a drug. Explain the need of determining bioavailability of a drug.

(b) What are proximate assays? Discuss the types of ash values carried out in analysis of crude drugs.

OR

(b) Explain the importance of stability studies of pharmaceutical preparation. What is meant by long term and short term stability studies?

Q.3 (a) Attempt any two of the following :

- (i) What are CNS stimulants? Explain with examples.
- (ii) Discuss isolation, identification & determination of morphine from biological fluids.
- (iii) What are the different techniques used in the analysis of blood stains in the case of post mortem?
- (iv) Describe method for determination of arsenic from stomach wash.

(b) How are metabolites of drugs determined in blood samples of addicts?

OR

(b) Discuss how LSD & cannabis are analysed from blood sample.

[TURN OVER

Con. 6081-14.

Q.4 (a) Attempt any two of the following :

- (i) How is propylene glycol determined in cosmetics ?
- (ii) Explain how aluminium and zinc are determined from deodorants.
- (iii) Give the methods of analysis of calcium and titanium from face powder.
- (iv) What are the constituents of lipsticks ? How is ash value of lipsticks determined ?

8

(b) How is glycerol estimated from vanishing creams ?

4

OR

(b) Explain how thioglycollic acid is estimated from cold permanent wavers.

4

Q.5 Attempt any four of the following :

12

- (a) Discuss in brief different types of tablets.
- (b) What is meant by therapeutic dose, toxic dose and prophylactic dose of a drug ?
- (c) Discuss the use of IR spectroscopy in pharmaceutical analysis.
- (d) Describe the influence of routes of drug administration on bioavailability of a drug.
- (e) How are barbiturates estimated from biological fluids ?
- (f) How are pesticides determined in post mortem sample of blood ?
- (g) What are emulsions ? Discuss different types of emulsions.
- (h) Give a method for determination of water in cosmetics.

—s—