BBM-M-202108

Seat No. _____

Third Year D. Pharm. Examination

July - 2021

Pharmaceutical Analysis : 3.2

Time : **3** Hours] [Total Marks : **70**

Instructions : (1) Figures to the right indicate marks.
(2) Draw neat and clean diagrams as required.

1 Answer the following questions : **10×02=20**

(a) How quality variations can be checked and minimized ?

(b) What is the role of QA in quality of drugs and pharmaceuticals ?

(c) Enlist and explain the main events occurred in flame photometry.

(d) Explain the principle and applications of mass and NMR spectroscopy.

(e) Which are the fundamental components of chromatographic techniques ?

(f) What are the main disadvantages of flame ionization and electron capture detectors ?

(g) Give the measuring unit for potential, conductivity, amperometry and voltammetry.

(h) Explain the properties of electromagnetic radiations and their application in spectroscopy.

(i) Draw a labelled diagram for barrier layer cell detector.

(j) What is the difference between hypochromic and hyperchromic effects ?

2 Answer any **two** out of the following questions : **2×10=20**

(a) State, derive and explain the Beer's and Lambert's law. Give the application and limitations/deviation of the law.

(b) What is electrometric method of analysis? Classify and discuss brief principle of potentiometry, conductometry and polarography.

(c) What is chromatography ? Classify different chromatographic methods. Briefly discuss separation mechanism of each techniques.

3 Answer any **six** out the following questions : **6×5=30**

(a) Discuss in detail: GLP and ISO standards.

(b) Discuss the principle of IR and fluorescence spectroscopy with suitable diagram.

(c) Differentiate: TLC: HPTLC: HPLC

(d) Draw a labelled diagram of GC. What is the difference between GLC and GSC ?

(e) What is electrophoresis? Discuss the principle and application of gel electrophoresis.

(f) Give the principle and applications of chromatographic separation in ion exchange and affinity chromatography.

(g) Draw a labelled diagram for DME. Give its advantages and disadvantages.

(h) Write a detailed note: Thermal methods of analysis.

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