

(2 Hours)

[Marks: 40]

N.B. Question No. 1 is compulsory.

- Q. 1 Select the right option **10**
- 1 Following Packaging guarantees safer medication by reducing the medication error ?
- a Unit dose packaging
 - b Multi dose Packaging
 - c Device Packaging
 - d Machine Packaging
- 2 Water attack test use for Standardization of which type of glass?
- a Type III
 - b Type II
 - c Type IV
 - d Type I
- 3 Iron oxide, manganese dioxide and chromium dioxide are the composition of colored glass used in the pharmaceutical packaging?
- a Yellow
 - b Blue
 - c Amber
 - d Green
- 4 The Pink' color coding is used for _____ class of pharmaceutical product?
- a Steroid
 - b Antibiotic
 - c Beta Blocker
 - d Anti infective
- 5 Which of the following will help in easy opening and closing of the valve in aerosol?
- a Valve
 - b Dip tube
 - c Shaft
 - d Actuator
- 6 Forming, filling and sealing equipment is used in
- a ointment tube
 - b edge wrapping
 - c shrink banding
 - d Sachets

- 7 Quality control test for rubber closure
- a Hydrolytic resistance test
 - b Self sealability test
 - c Metal particle test
 - d Powdered glass test
- 8 Sterilization of glass containers is done by
- a dry heat method
 - b moist heat method
 - c heating with a bactericide method
 - d aseptic technique
- 9 Which information is not required to be given in the label
- a Name of the preparation
 - b Address of manufacturer
 - c Name of the binder
 - d Batch number
- 10 In photostability study for packaging materials UV lamp having _____ is used
- a 320-400nm
 - b 200-320 nm
 - c 400-600nm
 - d 600-800nm

Q.I Answer any one of the following Marks

- 1 a Write a note on Collapsible tube? **3**
- b Differentiate between strip packing and blister packing **3**
- 2 a Describe types of Glass and name the tests done on glass containers. **3**
- b Write a note on ICH guidelines for stability testing of packages **3**

Q.II Answer any four questions. All questions carry equal marks.

- 1 a Write the properties of Ideal package used in pharmaceuticals? **2**
- b Why is biological test done for rubber closure **2**
- c Write on any one adhesive tape used in packaging **2**
- 2 a Why are rubber closures used for parenteral products sterilized ? **2**
- b Write the long term stability conditions for packages? **2**
- c Elaborate on any one quality control test done on corrugated boxes? **2**

- 3 a Explain different types of label used on pharmaceutical products 3
b Discuss various additives used in plastics and their role? 3
- 4 a what is Tamper resistant packaging give examples? 3
b Elaborate on the Components of Aerosol in detail? 3
- 5 a Describe shrink wrapping process for packages 3
b Elaborate quality control testing of plastic packaging material in detail? 3
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