

2 Hours

Total Marks: 40

N.B: 1) All question are compulsory.

2) Figures to right indicate full marks.

- Q.1 Choose appropriate option for following multiple choice based questions. **10**
- 1 Following Packaging guarantees safer medication by reducing the medication error ? **1**
- a Unit dose packaging
 - b Multi dose Packaging
 - c Device Packaging
 - d Machine Packaging
- 2 Treated soda lime glass is called a Glass **1**
- a Type I
 - b Type III
 - c Non pharmaceutical
 - d Type II
- 3 Iron oxide, manganese dioxide and chromium dioxide are the composition of colored glass used in the pharmaceutical packaging? **1**
- a Yellow
 - b Blue
 - c Amber
 - d Green
- 4 Following Test is NOT used for Standardization of Plastic material **1**
- a Leakage test
 - b Water attack test
 - c Transparency
 - d WVTR test
- 5 Which of the following will help in easy opening and closing of the valve in aerosol? **1**
- a Valve
 - b Dip tube
 - c Shaft
 - d Actuator

- 6 Feeding two webs of flexible film through heated crimping rollers is done in **1**
a Blister package
b shrink wrapping
c Strip package
d shrink banding
- 7 Quality control test for rubber closure **1**
a Hydrolytic resistance test
b Self sealability test
c Metal particle test
d Powdered glass test
- 8 Sterilization of rubber closure is done by **1**
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 **1**
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 **1**
a 320-400nm
b 200-320 nm
c 400-600nm
d 600-800nm

Q. II Answer any one of the following **6**

- 1 a Write a note on Collapsible tube? **3**
b Write a note on blister packing process of tablets **3**
- 2 a Describe types of Glass and name the tests done on glass containers. **3**
b Write on climatic cabinets used in pharmaceutical stability testing of packages **3**

Q. III Answer any four questions. All questions carry equal marks. **24**

- 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 parentral products sterilized ? 2
b Write the accelerated 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 properties of a plastic container to be used in packaging of pharmaceutical products in detail? 3
- 4 a What is Tamper resistant packaging give examples? 3
b Explain the factors required to be considered for selecting liners? 3
- 5 a Describe shrink wrapping process for packages 3
b Elaborate on aluminum foil as a packaging material? 3
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