

# **PHB Education**

**Government Exam and D. Pharm Exit Exam Preparation  
Questions Bank**

**Subject: *Pharmaceutics***  
**Chapter 2 : *Packaging Material***

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***SECTION 1: INTRODUCTION, TYPES & COMPOSITION OF PACKAGING MATERIALS (1–20)***

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1. The main purpose of pharmaceutical packaging is to:

- a) Attract customers
- b) Protect the product
- c) Increase the price
- d) Reduce potency

**Answer:** b) Protect the product

2. Primary packaging is the material that:

- a) Comes in direct contact with the drug
- b) Is used for bulk storage only
- c) Is outer covering for transport
- d) None

**Answer:** a) Comes in direct contact with the drug

3. Secondary packaging refers to:

- a) Label on bottle
- b) Outer box or carton
- c) Cap liner
- d) None

**Answer:** b) Outer box or carton

4. Which of the following is *not* a packaging material?

- a) Glass
- b) Plastic
- c) Paper
- d) Wood pulp

**Answer:** d) Wood pulp

5. Which type of glass is commonly used in parenteral preparations?

- a) Type I
- b) Type II
- c) Type III
- d) Type IV

**Answer:** a) Type I

6. Type I glass is also known as:

- a) Soda-lime glass
- b) Borosilicate glass
- c) Neutral glass
- d) Flint glass

**Answer:** b) Borosilicate glass

7. Rubber closures are used mainly in:

- a) Ointment tubes
- b) Injectable vials
- c) Tablets
- d) Capsules

**Answer:** b) Injectable vials

8. Blister packs are made of:

- a) PVC and aluminum foil
- b) Glass and rubber
- c) Tin and lead
- d) Paper and wax

**Answer:** a) PVC and aluminum foil

9. The main advantage of aluminum foil is:

- a) Transparency
- b) Moisture barrier
- c) Cheapness
- d) Flexibility

**Answer:** b) Moisture barrier

10. Aseptic packaging is used mainly for:

- a) Non-sterile tablets
- b) Injectable preparations
- c) Ointments
- d) Capsules

**Answer:** b) Injectable preparations

11. The composition of glass mainly includes:

- a) Silica, soda, lime
- b) Carbon, iron, zinc
- c) Lead, silver, silica
- d) Sulphur, zinc, soda

**Answer:** a) Silica, soda, lime

12. Which of the following is *not* a property of packaging material?

- a) Chemical inertness
- b) Reactivity
- c) Strength
- d) Transparency

**Answer:** b) Reactivity

13. The main composition of plastic is:

- a) Natural rubber
- b) Synthetic polymers
- c) Metal oxides
- d) Glass powder

**Answer:** b) Synthetic polymers

14. Plasticizers are added to plastics to:

- a) Make them rigid
- b) Make them flexible
- c) Reduce cost
- d) Change color

**Answer:** b) Make them flexible

15. Laminated packaging is:

- a) Single layer
- b) Multi-layered
- c) Transparent
- d) Wooden

**Answer:** b) Multi-layered

16. Strip packing is commonly used for:

- a) Tablets
- b) Syrups
- c) Injections
- d) Ointments

**Answer:** a) Tablets

17. Tinplate is an example of:

- a) Plastic packaging
- b) Metal packaging
- c) Rubber packaging
- d) Glass packaging

**Answer:** b) Metal packaging

18. The major disadvantage of glass packaging is:

- a) Inertness
- b) Brittleness
- c) Clarity
- d) Rigidity

**Answer:** b) Brittleness

19. Rubber is obtained from:

- a) Petroleum
- b) Natural latex
- c) Plant fiber
- d) Coal

**Answer:** b) Natural latex

20. Amber glass is used to protect against:

- a) Moisture
- b) Light
- c) Heat
- d) Air

**Answer:** b) Light

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**SECTION 2: SELECTION CRITERIA OF PACKAGING MATERIALS (21–40)**

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21. The most important factor in selecting packaging material is:

- a) Color
- b) Compatibility with product
- c) Weight
- d) Shape

**Answer:** b) Compatibility with product

22. For hygroscopic substances, packaging must be:

- a) Air-tight
- b) Transparent
- c) Heavy
- d) Cheap

**Answer:** a) Air-tight

23. Cost-effectiveness is considered in:

- a) Primary packaging only
- b) Secondary packaging only

c) Both primary and secondary packaging

d) None

**Answer:** c) Both

24. Plastic containers are selected for:

a) Light weight and economy

b) High chemical reactivity

c) Poor strength

d) Poor barrier properties

**Answer:** a) Light weight and economy

25. The packaging material should not interact with:

a) Air

b) Water

c) Product

d) Label

**Answer:** c) Product

26. For parenterals, packaging must be:

a) Non-sterile

b) Sterile

c) Cheap

d) Transparent only

**Answer:** b) Sterile

27. Stability studies help to:

a) Evaluate container compatibility

b) Change color

c) Alter formulation

d) None

**Answer:** a) Evaluate container compatibility

28. Good packaging material must ensure:

a) Drug contamination

b) Drug protection

c) Product instability

d) Reactivity

**Answer:** b) Drug protection

29. The container must be resistant to:

a) Mechanical shock

b) Light and moisture

c) Gas permeation

d) All of the above

**Answer:** d) All of the above

30. The shelf-life of a drug depends on:

a) Packaging material

b) Color

c) Cost

d) Shape

**Answer:** a) Packaging material

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### **SECTION 3: GLASS AS A PACKAGING MATERIAL (41–55)**

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41. The main advantage of glass is:

a) Chemical inertness

b) Flexibility

c) Porosity

d) Cheapness

**Answer:** a) Chemical inertness

42. Glass containers can be sterilized by:

a) Autoclaving

b) Boiling

c) Gamma radiation

d) All of these

**Answer:** d) All of these

43. Disadvantage of glass:

a) Heavy weight

b) Transparency

c) Inertness

d) Smooth surface

**Answer:** a) Heavy weight

44. Type II glass is suitable for:

a) Aqueous injections

b) Alkaline preparations

c) Powders

d) Ointments

**Answer:** a) Aqueous injections

45. Amber glass prevents:

- a) Moisture
- b) UV light degradation
- c) Sterility
- d) Corrosion

**Answer:** b) UV light degradation

46. Soda-lime glass is also known as:

- a) Type III glass
- b) Type I glass
- c) Neutral glass
- d) Flint glass

**Answer:** a) Type III glass

47. Which test is used for glass evaluation?

- a) Hydrolytic resistance test
- b) Melting point test
- c) Flame test
- d) Color test

**Answer:** a) Hydrolytic resistance test

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**SECTION 4: PLASTIC AS A PACKAGING MATERIAL (56–70)**

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56. The main polymer used in plastic bottles is:

- a) Polyethylene
- b) PVC
- c) Polystyrene
- d) Nylon

**Answer:** a) Polyethylene

57. Plastic is advantageous because it is:

- a) Lightweight and flexible
- b) Brittle
- c) Opaque
- d) Corrosive

**Answer:** a) Lightweight and flexible

58. Disadvantage of plastic:

- a) Moisture absorption
- b) Permeability to gases

c) Heavy weight

d) Brittleness

**Answer:** b) Permeability to gases

59. Polypropylene is resistant to:

a) High temperature

b) Acids

c) Both a and b

d) None

**Answer:** c) Both a and b

60. Plastic can leach:

a) Additives into product

b) Vitamins

c) Glass particles

d) None

**Answer:** a) Additives into product

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## **SECTION 5: METAL AS A PACKAGING MATERIAL (71–85)**

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71. Common metals used in packaging:

a) Aluminum and tin

b) Gold and silver

c) Copper and zinc

d) Lead and iron

**Answer:** a) Aluminum and tin

72. Advantage of metal containers:

a) Strength and opacity

b) Light weight

c) Flexibility

d) Fragility

**Answer:** a) Strength and opacity

73. Main disadvantage of metal:

a) Reactivity with product

b) Strength

c) Inertness

d) Durability

**Answer:** a) Reactivity with product

74. Coatings are applied to metal to:

- a) Prevent corrosion
- b) Increase reactivity
- c) Change color
- d) None

**Answer:** a) Prevent corrosion

75. Aluminum foils are mainly used for:

- a) Tablets and capsules
- b) Syrups
- c) Ointments
- d) Liquids

**Answer:** a) Tablets and capsules

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**SECTION 6 : RUBBER AS A PACKAGING MATERIAL (86–100)**

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86. Rubber closures are used in:

- a) Vials and bottles
- b) Tablets
- c) Blister packs
- d) Tubes

**Answer:** a) Vials and bottles

87. Natural rubber is derived from:

- a) Latex of *Hevea brasiliensis*
- b) Petroleum
- c) Coal tar
- d) Plastic

**Answer:** a) Latex of *Hevea brasiliensis*

88. Advantage of rubber:

- a) Flexibility and sealing
- b) Brittleness
- c) Transparency
- d) Porosity

**Answer:** a) Flexibility and sealing

89. Disadvantage of rubber:

- a) May absorb drugs
- b) Hard surface

c) Inertness

d) Sterility

**Answer:** a) May absorb drugs

90. Vulcanization improves:

a) Elasticity

b) Hardness

c) Chemical resistance

d) All of the above

**Answer:** d) All of the above

91. Synthetic rubber includes:

a) Butyl rubber

b) Silicone rubber

c) Neoprene

d) All of these

**Answer:** d) All of these

92. The best rubber for multiple use stoppers is:

a) Butyl rubber

b) Natural rubber

c) Neoprene

d) Silicone

**Answer:** a) Butyl rubber

93. Rubber closures are tested for:

a) Fragmentation and self-sealing

b) Weight

c) Transparency

d) None

**Answer:** a) Fragmentation and self-sealing

94. Main disadvantage of rubber closures:

a) Leaching of additives

b) Inertness

c) Color

d) Sterility

**Answer:** a) Leaching of additives

95. Synthetic rubber provides better:

a) Chemical stability

b) Flexibility

c) Absorption

d) Porosity

**Answer:** a) Chemical stability

96. Elastomers refer to:

a) Rubber-like materials

b) Metals

c) Glass

d) Ceramics

**Answer:** a) Rubber-like materials

97. Rubber stoppers are sterilized by:

a) Autoclaving

b) Dry heat

c) Radiation

d) All of the above

**Answer:** d) All of the above

98. Rubber reacts with:

a) Oils

b) Alcohols

c) Strong acids

d) All of the above

**Answer:** d) All of the above

99. For highly sensitive injectables, which closure is preferred?

a) Silicone rubber

b) Butyl rubber

c) Natural rubber

d) Neoprene

**Answer:** b) Butyl rubber

100. Rubber packaging must be tested for:

a) Extractables and compatibility

b) Color

c) Weight

d) Shape

**Answer:** a) Extractables and compatibility



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