22489

12425

03 Hours / 70 Marks   Seat No.

Instructions –   (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answer with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1.   **Attempt any FIVE of the following:**   **10**

a) State any two functions of packaging.

b) Enlist any two properties and two applications of PE in packaging.

c) State any two advantages of polymers in packaging.

d) Enlist any two advantages of flexible packaging.

e) Draw neat labelled figure for pressure forming process.

f) Draw neat labelled figure for plug assisted forming process.

g) Draw three side seal pouch and four side seal pouch.

Marks

2. Attempt any <u>THREE</u> of the following: **12**

  a) Enlist any four properties and four applications of PP in packaging.

  b) Describe blown film extrusion process with neat figure.

  c) Explain the neat figure the skin packaging process.

  d) Describe with neat figure the construction of pillow pouch.

3. Attempt any <u>THREE</u> of the following: **12**

  a) Enlist any four properties and four applications of PET in packaging.

  b) Describe cast film extrusion process with neat figure.

  c) Explain with neat figure the vacuum forming process.

  d) Describe pad printing process with neat figure.

4. Attempt any <u>THREE</u> of the following: **12**

  a) State any four selection criteria for packaging material.

  b) Describe modified atmosphere packaging process.

  c) Explain with neat figure the bar sealing method.

  d) Describe vibration test for packages.

  e) Explain product loss test for packages.

5. Attempt any <u>TWO</u> of the following: **12**

  a) Explain with neat figure the process of dry adhesive lamination.

  b) Describe with neat figure extrusion blow moulding.

  c) Explain screen printing method with neat figure.

6. Attempt any <u>TWO</u> of the following: **12**

  a) Describe with neat figure injection blow moulding.

  b) Explain with neat figure vertical form fill seal process.

  c) Describe stack load test for packages.

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