

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 With the help of labelled sketch explain the construction and working of 'Banbury Mixer'.

Q.4 Discuss principle of compounding? How Compounding helps in modifying and enhancing processing characteristic of polymers.

Q.5 Write short note on :-

(a) Dyes and Pigments.

(b) Dispersors.

Q.6 Explain formulation and role of various ingredients in the compounding of thermoplastics materials giving suitable example.

Q.7 Discuss :-

(a) Twin screw extruder.

(b) Two roll mill.

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5th Sem. / Plastic Engg.

Subject : Compounding & Formulation Of Plastics

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Name two plasticizers used in Plastic Industry.

b) Expand DIOP.

c) Give two applications of Rigid PVC.

d) What are Anti-Termite?

e) Give function of lubricants.

f) Define antistatic agents.

g) Give two applications of kneaders.

h) Define pigments and dyes.

i) Give importance of compounding in plastic industry.

- j) What are flame retardents? Give example.
- k) Name two anti oxidants used in plastics.
- l) Explain service life of plastics.
- m) Name two UV stabilizer used in plastic formulations.
- n) Give two example of flexible PVC formulation.
- o) What are smoke suppressants?
- p) Name two Blowing agents used in Plastic formulations.
- q) Expand DMC.
- r) Name two solvents used in Plastic dilution.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) State four advantages of Compounding.
 - ii) Give principle of 'Extrusion'.

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- iii) Define Auto-oxidation.
- iv) What are bactericide additives?
- v) Give formulation of flexible PVC pipes.
- vi) What are impact modifiers? Give example.
- vii) State working of ribbon blender.
- viii) Give four ingredients used in thermoset materials.
- ix) What are anti-ageing additives? Give example.
- x) Explain Role of flame retardent.
- xi) Explain high speed mixer.
- xii) Write short note on 'Mold release agent'.
- xiii) Define Heat Stabilizers with example.
- xiv) What are Defoamers? Explain.
- xv) Explain various fillers. used in plastic formulation.

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