

Q.34 Explain Smoke suppressants with example.

Q.35 Discuss anti slip and anti block additives.

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Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x10=20)

Q.36 Explain principle, construction and working of Mixer extruder with neat sketch.

Q.37 Explain :

- a) Anti-aging additives
- b) Colourants used in plastic compounding.

Q.38 Explain :

- a) Formulation and role of various ingredients in compounding of thermoset materials.
- b) Explain working and construction of Ribbon blender.

5 Sem., Branch : Plastic

**Subject : Compounding & Formulation of Plastics/
Compound of poly**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

Q.1 _____ is an example of mold release agent.

- a) Silicone
- b) Water
- c) Talc
- d) All of them

Q.2 Antimony tri oxide is an example of _____.

- a) Lubricant
- b) Flame retardant
- c) Anti oxidant
- d) None them

Q.3 _____ is an example of filler.

- a) CaCo₃
- b) Talc
- c) Mica
- d) All of them

Q.4 DOP stands for _____.

- a) Di-octane phthalates
- b) Di-octyl plastic
- c) Di-octyl phthalates
- d) None of the above

Q.5 Cellular structure in polymers is produced by _____.

- a) Fungicides
- b) Antistatic agents
- c) Blowing agents
- d) Mould release agents

Q.6 Kneaders are exclusively meant for _____.

- a) Blending miscible liquids
- b) None-flowing powder and pastes
- c) Batch mixing
- d) Both B & C

Q.7 An example of Rigid PVC application is _____.

- a) Conduit pipe b) Rod
- c) Tiles d) All of these

Q.8 Which form of colourants is insoluble in nature?

- a) Dyes b) Pigments
- c) Both A & B d) None of them

Q.9 Plasticizers _____ the chain length of the polymers.

- a) Increase b) Decrease
- c) Do not affect d) None of these

Q.10 _____ is an example of Anti oxidants?

- a) Secondary amines b) Phenols
- c) Phosphites d) All of them

Section-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Give two examples of lubricants.

Q.12 Name two additives used in cable & insulations.

Q.13 _____ is an examples of solvent used n plastic compounding.

Q.14 Give an example of UV stabilizers.

Q.15 _____ is an example of heat stabilizers.

Q.16 Expand HALS.

Q.17 State an application, where high speed mixer is used.

Q.18 Give an example of Defoamer.

Q.19 Name two antistatic agents.

Q.20 Name an application, where Ribbon blender is used.

Section-C

Note: Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)

Q.21 How will you select good filler?

Q.22 Explain intensive dry mixer working.

Q.23 Explain principle of compounding.

Q.24 State difference between compounding and mixing.

Q.25 Draw diagram of various blades used in kneaders.

Q.26 Discuss formulation for flexible PVC pipes.

Q.27 Discuss role of compounding in increasing service life of plastics.

Q.28 Explain construction and working of high shear mixer.

Q.29 Discuss colorants and its types.

Q.30 Discuss role of various ingredients in any thermosets application.

Q.31 Discuss UV-Stabilizers.

Q.32 Explain Plasticizers used in plastic compounding.

Q.33 Draw a neat sketch of Banbury mixer.