

Q.34 Explain Smoke suppressants with example.

Q.35 Discuss anti slip and anti block additives.

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.

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Roll No.

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) CaCO_3 b) Talc
- c) Mica d) All of then

Q.4 DOP stands for _____.

- a) Di-octane phthlates 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.