

- Q.30 State advantages of Twin-screw extruder
 Q.31 Explain Plasticizers with examples
 Q.32 Discuss working of Disperser.
 Q.33 Explain two roll mill.
 Q.34 Explain heat stabilizers with example.
 Q.35 Discuss anti slip and anti-block additives

SECTION-D

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

- Q.36 Explain construction and working of Mixer extruder with neat sketch.
 Q.37 Explain :-
 a) Principle of compounding
 b) Colourants used in plastic compounding
 Q.38 Explain :-
 a) Role of compounding in enhancing processing and applications of plastics
 b) Formulation and role of various ingredients in compounding of thermoset materials

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Branch : Plastic Engineering
Subject:- Compounding And Formulation Of Plastic / Compound of Poly.

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Plasticizers _____ the strength of plastics
 a) Increases b) Remains unaffected
 c) Decreases d) None of these
 Q.2 In compounding different polymers are mixed with _____ in a fixed ratio to improve overall properties
 a) Resins b) Binders
 c) Fibers d) Additives
 Q.3 Which is an example of Blowing agent ?
 a) H₂O b) HCl
 c) H₂SO₄ d) NaCl
 Q.4 Which is an example of Flame retardant ?
 a) DOP b) Antimony trioxide
 c) Euracamide d) None of these
 Q.5 Which is an example of Blowing agent ?

- a) H_2O b) HCl
 c) H_2SO_4 d) NaCl
- Q.6 Which is an example of antislip agent ?
 a) ZnO b) Euracamide
 c) PbO d) None of them
- Q.7 A ball mill uses _____ force
 a) Impact b) Shear force
 c) Attrition d) All of these
- Q.8 DOP stands for
 a) DI-octane phthalates b) Di-octyl plastic
 c) Di-octyl phthalates d) None of these
- Q.9 Ribbon Blenders are exclusively meant for _____
 a) Blending miscible liquids
 b) Non-flowing powder and pastes
 c) Batch mixing
 d) Continuous mixing
- Q.10 Which additives prevent the sticking of Plastic film layers together ?
 a) Antistatic agent b) Lubricants
 c) Anti block agents d) Mold release agents

SECTION-B

Note: Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$

- Q.11 Calcium carbonate is an example of _____

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- Q.12 _____ is an example of heat stabilizers.
 Q.13 Give an example of antioxidant
 Q.14 Kneaders are used in _____ process
 Q.15 Expand HALS.
 Q.16 Name two solvents used in plastic compounding.
 Q.17 Name any two colorants used in plastic industry.
 Q.18 Give an example of mould release agent.
 Q.19 Name two impact modifiers used in plastic compounding.
 Q.20 Molybodic oxide is an example of _____ additive.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$

- Q.21 How will you select good filler ?
 Q.22 Explain intensive dry mixer working.
 Q.23 Discuss the 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 of flexible PVC pipes.
 Q.27 Explain lubricants with examples.
 Q.28 Explain role of compounding in increasing service life of plastics.
 Q.29 Define anti-oxidants with example

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