

- Q.25 Differentiate between intensive dry mixer and extensive dry mixer.
- Q.26 Explain Lubricants and their types.
- Q.27 Explain blowing agents and their significance in plastic industries.
- Q.28 Explain service life of plastics.
- Q.29 What are the processing aids and their function?
- Q.30 Explain extruder their working and construction?
- Q.31 Explain formulation of various ingredient in thermoplastic materials.
- Q.32 Explain working & construction of two roll mill.
- Q.33 List five application of flexible PVC.
- Q.34 Discuss ageing phenomenon in plastics.
- Q.35 Explain working and construction of kneaders.

SECTION-D

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

- Q.36 Explain briefly construction & working of banbury mixer.
- Q.37 Explain briefly construction & working of twin extruder.
- Q.38 Explain in details the compounding on PVC pipes including the mixer to be used.

(40)

(4) 182255/122255/032255

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5th Sem / Plastic
Subject:- Compounding and Formulation of Plastics/
Compound of Poly

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Blending of plastic material
 a) Physical mixing b) Chemical mixing
 c) Both A& B d) None of these
- Q.2 Expand DIOP
 a) Di-isophthalate b) Di-octyl phylene
 c) Both A & B d) None of these
- Q.3 Function of plasticizer is to
 a) Increase the flexibility
 b) Increase the rigidity
 c) Decrease the flexibility
 d) All of these
- Q.4 Fillers are used in plastics to improve
 a) Mechanical properties

(1) 182255/122255/032255

- b) electrical properties
 - c) Thermal properties
 - d) None of these
- Q.5** Blowing agents are an example of
- a) $\text{Ca}(\text{OH})_2$
 - b) CaCO_3
 - c) NaHCO_3
 - d) All of these
- Q.6** Flame retardants are used
- a) To ignite flame
 - b) To retard flame
 - c) Both A & B
 - d) None of these
- Q.7** Example of slip agents
- a) Coal powder
 - b) Grease
 - c) Graphite
 - d) All of these
- Q.8** Function of mold releasing agents
- a) To reduce friction
 - b) To enhance friction
 - c) Both A & B
 - d) None of these
- Q.9** Colorants are the example of
- a) Zinc oxide
 - b) Titanium oxide
 - c) White leads
 - d) All of these
- Q.10** Stabilizers are an example of
- a) Berium
 - b) White lead
 - c) Cadmium laurate
 - d) All of these

SECTION-B

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

- Q.11 Define compounding.
- Q.12 Define formulation.
- Q.13 Define degradation of polymers.
- Q.14 Define masterbatch.
- Q.15 Define dyes.
- Q.16 What are antiageing properties?
- Q.17 Write an example of lubricant.
- Q.18 Define fusion.
- Q.19 Function of Extruder.
- Q.20 Define bactericide additives.

SECTION-C

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

- Q.21 State the function of compounding of plastics materials.
- Q.22 State the roll of plasticizers.
- Q.23 Draw neat sketch of ribbon blenders.
- Q.24 Explain compounding of rigid PVC and their application.