

- Q.29 What are UV radiations. How they affect plastics products.
- Q.30 Why impact modifiers are used in plastics. Which materials is used as impact modifier in PS material.
- Q.31 Why the toys made from PVC material were banned by Government.
- Q.32 Name two types of Twin Screw Extruders. Draw a neat sketch of any one.
- Q.33 Define the term Masterbatch. Give only the overview of their manufacturing process.
- Q.34 Why antistatic agents are used in Plastics. Give two examples of antistatic agents.
- Q.35 Give the difference between Plasticizers and extenders.

SECTION-D

Note: Long Answer type question. Attempt any two questions. (2x10=20)

- Q.36 With a neat and labelled sketch. Explain the working of following.
- a) Kneaders b) Masticators
- Q.37 With examples define any five additives. Also write how each one of them enhances the service life of plastics.
- Q.38 With a neat and labelled sketch write down the working of Two Roll Mill.

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5th Sem, **Branch** : Plastics Technology
Subject : Compounding and formulation of Plastics

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Which of following is a inert filler
- a) Carbon Fiber b) Glass Fiber
- c) Calcium Carbonate d) None of above
- Q.2 The base material of plastisol is
- a) PE b) PP
- c) PS d) PVC
- Q.3 The most common impact modifier used with HIPS is
- a) PVC b) BR
- c) PE d) PS
- Q.4 Blending is the term used with
- a) Melts b) Liquids
- c) Powders d) Both melts & powders
- Q.5 Maximum heat stabilizers are used with which of following plastics material
- a) PVC b) PP
- c) PE d) PMMA

- Q.6 Plasticizers are used to make
- Rigid Products
 - Flexible Products
 - Both rigid & Flexible products
 - None of above
- Q.7 Which plastics is highly prone to oxidative degradation
- PE
 - PVC
 - PS
 - PA
- Q.8 DIDP is example of
- Heat Stabilizer
 - Plasticizers
 - Impact modifier
 - Anti oxidant
- Q.9 Master batch is
- Anti oxidant
 - Colorant
 - IR stabilizer
 - Filler
- Q.10 Compounding is used for which of following reasons
- To induce specific property
 - To improve overall product performance
 - To enhance service life
 - All of above

SECTION-B

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

- Q.11 Define the term additive.
- Q.12 Define the term smoke.
- Q.13 Name two Antioxidants.

- Q.14 Expand the term UV.
- Q.15 Define the term Flame.
- Q.16 Expand the term PVC.
- Q.17 Define thermoset plastics.
- Q.18 Define the term TSE.
- Q.19 Define the term Blending.
- Q.20 Write the classification of fillers.

SECTION-C

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

- Q.21 With a neat and labelled sketch. Write down the working of Ribbon Blender,
- Q.22 Write different type of lubricants. Write the definition of each.
- Q.23 Why blowing agent are used in Plastics. Write the name of two blowing agents.
- Q.24 What is oxidative degradation. Which Plastics are mostly prone to oxidative degradation.
- Q.25 For which Plastics material maximum additives are used. Give the reason for same.
- Q.26 With a neat and labelled sketch. Write the note on Banbury Mixer.
- Q.27 Define Plastisols. Give two applications of plastisols.
- Q.28 Give the names (only) of the various additives used in the compounding of Unsaturated polyester Resin.