

- Q.31 State the role of plasticizer.
- Q.32 Explain mold releasing agents.
- Q.33 Explain blowing agents in plastics.
- Q.34 Explain degradation of plastics and their types.
- Q.35 Explain the significance of compounding in plastic industries.

### SECTION-D

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

- Q.36 Write short note on:
- Heat stabilizers
  - Plasticizers
- Q.37 Give role of formulation of various ingredients used in PVC material for rigid pipes.
- Q.38 Explain briefly construction & working of banbury mixer and their application.

No. of Printed Pages : 4

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Roll No. ....

### 5th Sem. / Plastics Technology

**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 Heat stabilizers are used in plastics to improve
- Thermal stability
  - Reduce degradation
  - Overall life of Plastics
  - None of these
- Q.2 Growth of bacteria is in presence of
- Moisture
  - Sunlight
  - Air
  - All of these
- Q.3 Function of screw is to used for
- Pumping
  - Conveying
  - Generate heat
  - All of these
- Q.4 Expanded form of phr
- Part per hundred resin
  - % per hundred resin
  - Both a and b
  - None of these

- Q.5 Algae growth in water is controlled by  
 a) Deoxidation                      b) Chlorination  
 c) Bleaching                        d) Aeration
- Q.6 Which material is a heat sensitive  
 a) PVC                                b) PVDF  
 c) PET                                d) None of these
- Q.7 Screw extruder is a \_\_\_\_\_ process  
 a) Continuous                      b) Batchwise  
 c) Both a and b                      d) All of these
- Q.8 \_\_\_\_\_ are mixed using ribbon blender  
 a) Lumpy solid & low viscosity liquids  
 b) Dry powders  
 c) High viscosity liquid  
 d) None of these
- Q.9 The most suitable for compounding of rubber  
 a) Banbury mixer                      b) Pan mixer  
 c) Pug mill                              d) All of these
- Q.10 Examples of fillers are  
 a) Wood flour                        b) Clay  
 c) Sand                                d) All of these

### SECTION-B

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

- Q.11 Define colorant.

- Q.12 Define screw.
- Q.13 Write an example of blowing agent.
- Q.14 Define additives.
- Q.15 Define compounding of plastics.
- Q.16 What are pigments?
- Q.17 Write an example of heat stabilizer.
- Q.18 Define gelation.
- Q.19 Function of extruder.
- Q.20 Define compatibility of plastics.

### SECTION-C

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

- Q.21 Explain the principle of internal and external lubricants with suitable example.
- Q.22 Explain service life of plastics and their applications.
- Q.23 Explain the role of antislip agents in plastics.
- Q.24 State four ingredients used in thermoplastics.
- Q.25 State the role of plasticizer.
- Q.26 What are processing aids?
- Q.27 Explain the function of lubricants in plastics.
- Q.28 Explain the role of antistatic agents in plastics.
- Q.29 Draw neat and labelled sketch of two roll mill.
- Q.30 State five ingredients used in thermoplastics.