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5th Sem. / Plastic Technology
Subject : Compounding & Formulation of Plastics

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

Q.1 Function of plasticizer is to

- a) Increase The flexibility
- b) Increase the rigidity
- c) Decrease the flexibility
- d) All of these

Q.2 Which types of lubricants are used in plastic industry?

- a) Solid
- b) Liquid
- c) Gas
- d) All of these

Q.3 Fillers are used in plastic to improve

- a) Mechanical properties
- b) Electrical properties
- c) Thermal properties
- d) All of these

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- Q.4 Expanded form of phr
 a) Part per hundred resin
 b) % per hundred resin
 c) Both A & B
 d) None of these
- Q.5 Example of slip agents
 a) Coal powder b) Grease
 c) Graphite d) All of these
- Q.6 Stabilizers are an example of
 a) White lead b) Berium
 c) Cadmium Laurate d) All of these
- Q.14 Explain twin screw extruder working and construction with neat sketch.
- Q.15 What are UV stabilizers? Discuss their working.
- Q.16 What is the function of internal and external lubricants.
- Q.17 What are intensive dry mixers explain any one of them.
- Q.18 Discuss ageing phenomenon in plastics.
- Q.19 Discuss the role of kneaders in plastics industries.
- Q.20 What are lubricants and their types explain briefly.
- Q.21 Discuss fillers and write their functions in various Plastic industries.
- Q.22 Draw a neat sketch of two roll mill and label it.

Section-B

Note: **Objective/Completion type questions. All questions are compulsory.** **(6x1=6)**

- Q.7 Write two example of blowing agents.
- Q.8 Define compounding with example.
- Q.9 Define UV stabilizer with example.
- Q.10 DOP is plasticizer of PVC. (True/False)
- Q.11 What are lubricants used in plastics compounding.
- Q.12 Write two examples of flame retardant.

Section-C

Note: **Short answer type Question. Attempt any eight questions out of Ten Questions.** **(8x4=32)**

- Q.13 Explain flame retardant and their function in plastics compounding.

Section-D

Note: **Long answer questions. Attempt any two question out of three Questions.** **(2x8=16)**

- Q.23 Explain role of stabilizers in plastic industries and also discuss the type of stabilizer.
- Q.24 Discuss the significance of compounding for enhancing the service life of plastics.
- Q.25 Explain briefly construction and working of Banbury mixer.