

- Q.30 Explain Bio-Degradation, name any five synthetic polymer.
- Q.31 Explain Importance of plastic segregation.
- Q.32 How you separate the plastic waste, explain any one technique.
- Q.33 Explain five sources of water pollution related to the plastic waste.
- Q.34 Difference between Natural and synthetic polymer.
- Q.35 Write ISI standards regarding limits of chemicals in effluents.

SECTION-D

Note : Long Answer type question. Attempt any two questions. $(2 \times 10 = 20)$

- Q.36 Define Process Flow Chart, write the sequence of machinery related to the recycling plant.
- Q.37 Explain:-
a) Re-processing of plastic.
b) Re-Cycling of Plastic
- Q.38 Explain:
a) Role of Additives in Plastic
b) Role of Flame Retardants in Plastic

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**5th Sem / Plastic Engineering
Subject : Plastic Recycling & Waste Management**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note : Multiple choice questions. All questions are compulsory. $(10 \times 1 = 10)$

- Q.1 _____ is the process of recycling raw materials to carry new product.
a) Reducing b) Re-processing
c) Re-cycling d) Composting
- Q.2 Which of the following materials is non-biodegradable.
a) Plant waste b) Paper
c) Plastic d) Yard waste
- Q.3 Bakelite is used for making.
a) Laminated sheet b) Electrical switch
c) Waste wipes d) Paint
- Q.4 One of characteristics of Polymer is.
a) High temp stability
b) High mechanical strength
c) High elongation
d) Low hardness

- Q.5 Bitumen is a byproduct of _____.
a) Wood b) Petroleum
c) Kerosene d) Coal
- Q.6 PET stands for.
a) Polyethylene Terephthalate
b) Polyethylene Tetraphthalate
c) Polyethylene Tetrophthalate
d) None of them
- Q.7 Name of waste management technique.
a) Disposal b) Recycling
c) Landfills d) All of these
- Q.8 Which of the following can be recycled many times.
a) Wood b) Plastic
c) Aluminum d) Organic Material
- Q.9 How many main components are there in integrated waste management.
a) 2 b) 3
c) 7 d) 11
- Q.10 Which industrial waste is commonly used in construction industry
a) Hg ash b) Slag
c) Sludge d) Red Oxide

SECTION-B

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

- Q.11 Define soil pollution.

- Q.12 Write full form of COD.
Q.13 Define Natural Polymer.
Q.14 What is Bio-Degradation.
Q.15 What is Re-Processing.
Q.16 Example of natural polymer.
Q.17 Name of the different types of flame retardants.
Q.18 Expand PP and PE.
Q.19 Define separation.
Q.20 Write the example of different types of additives.

SECTION-C

- Note :** Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$
- Q.21 Write a short note on Landfill of plastic.
Q.22 Define Pollution, explain the toxic chemicals produced from plastic.
Q.23 Difference between Bio-Degradation and Thermal Degradation.
Q.24 Explain the need of Plastic Re-cycling.
Q.25 Write the advantage and disadvantage of Re-processing.
Q.26 Explain density separation with neat sketch.
Q.27 Explain causes of soil and water pollution related to the plastic.
Q.28 Define rain water harvesting with neat sketch.
Q.29 Write the different collection methods of plastic waste.