

- Q.28 How plastic wastes can be used in construction of roads ?
- Q.29 Discuss photo-degradation of plastics.
- Q.30 What is equipment-based sorting techniques
- Q.31 Explain various techniques for collection of plastic wastes.
- Q.32 Discuss the utilization of woven sacks wastes of plastics into various other form.
- Q.33 Explain waste water recovery by membrane separation.
- Q.34 Discuss forth floatation technique for plastic waste separation.
- Q.35 Explain Co-processing in Cement Klin

#### SECTION-D

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

- Q.36 Explain various techniques for " public awarenes " regarding hazards caused by indiscriminate use of plastics.
- Q.37 Write short note on :
- Loading of toxic chemicals form plastic to soil and water
  - Thermal - dergradation of plastic wastes.
- Q.38 Discuss advantages and disadvantages of recycling.

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### 5th Sem ./ Branch : Plastic Engineering Subject:- Plastic Recycling and Waste Management

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 Full form of MSW is \_\_\_\_.
- Multy Sewage Waste
  - Multi Screw Working
  - Multiple Solid Waste
  - Municipal Solid Waste
- Q.2 The plastic which soft when heat is apply. but requires cooling to set them to shape are.
- Thermosofting
  - Thermosetting
  - Thermoplastic
  - Thermostatting
- Q.3 Which of the following methods is better for the solid waste problem.
- Recycling
  - Reprocessing
  - Reuse
  - All of them
- Q.4 Which of the following statements is incorrect for plastic wastes ?
- It is used to make compost
  - It lasts for a longer period of time
  - Toxic fumes are produced when burnt
  - All of the above
- Q.5 Under which rule of Government, guidelines for solid waste management are followed ?

- a) Municipal solid waste rules 2000
  - b) Municipal solid waste rules 2016
  - c) Solid waste rules 2000
  - d) Solid waste rules 2005
- Q.6 \_\_\_\_\_ is the process of recycling raw materials to carry new product.
- a) Reducing                      b) Re-processing
  - c) Re-cycling                  d) Composting.
- Q.7 Which of the following gas is produced from landfill wastes ?
- a) Bio-gas
  - b) Natural gas
  - c) Liquified petroleum gas
  - d) All of the above
- Q.8 Polyethylene tere-phthalate plastic is commonly found in
- a) Soft drinks and water bottles
  - b) Laundry detergent bottle
  - c) Pipes
  - d) Shopping bags
- Q.9 Why is it difficult to recycle plastics ?
- a) It is very hard
  - b) It comes in different sizes
  - c) It is adhesive
  - d) It contains different types of polymer resins
- Q.10 The international recycling logo ( Resin identification code ) consist of \_\_\_\_\_ chasing arrows.
- a) Two                              b) Three
  - c) Four                             d) Six

## SECTION-B

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

- Q.11 Name two bio degradable plastics
- Q.12 ISI stands for \_\_\_\_\_
- Q.13 Name different stages of recycling
- Q.14 Name two agents used in plastics for increasing their service life.
- Q.15 Name two plasticizers used in plastic industry.
- Q.16 Define co-processing.
- Q.17 B.O.D stands for \_\_\_\_\_
- Q.18 Give examples of two natural polymers.
- Q.19 Density of HDPE is \_\_\_\_\_.
- Q.20 Resin identification code for PET is \_\_\_\_\_

## SECTION-C

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

- Q.21 Write short note on "proper disposal of plastics "
- Q.22 Explain waste water recovery by membrane separation process.
- Q.23 Discuss various stages of recycling of plastic wastes.
- Q.24 Explain solvent separation process for plastic wastes.
- Q.25 State various sources of plastic wastes.
- Q.26 Discuss need and importance of plastic resprocessing.
- Q.27 Define life expectancy of various polymers in environment