

DECEMBER 2022

B.A. (JMC)5th Semester

WASTE MANAGEMENT IN DAILY LIFE (OES - 301A)

Time: 3 hrs.

Max. Marks:75

- Instructions:**
1. It is compulsory to answer all the questions (1.5 mark each) of Part -A in short.
 2. Answer any four questions from Part -B in detail.
 3. Different sub-parts of a question are to be attempted adjacent to each other.

PART -A

Q1 Write the following questions in brief:

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| (a) | Describe wet-waste with suitable examples? | (1½) |
| (b) | Give any two examples of hazardous waste. | (1½) |
| (c) | What is the significance to use liner systems in landfills? | (1½) |
| (d) | What kind of waste is stored in green colored bins? | (1½) |
| (e) | What is the significance of source segregation of waste? | (1½) |
| (f) | Name any two waste types that can't be recycled. | (1½) |
| | Arrange all four phases of biological reactions occur in landfills, in correct order: | (1½) |
| (g) | a. Methanogenesis (unsteady) | |
| | b. Acid Phase | |
| | c. Aerobic Phase | |
| | d. Methanogenesis (steady) | |
| (h) | What is the process flow of an integrated solid waste management system? | (1½) |
| (i) | Which physical property of Municipal Solid Waste is important to consider for transportation of solid waste and why? | (1½) |
| (j) | What are the optimal conditions required for biogas generation from waste? | (1½) |

PART -B

- Q2 (a) Define waste. Explain in detail about composition and classification of waste in different types. (7½)
- (b) Briefly explain about the various steps involved in waste management. (7½)
- Q3 Write short note on the following (*Attempt any three*): 5 x 3=15
- (a) Vermicomposting
 - (b) Safe disposal of waste
 - (c) Waste Processing-Volume reduction
 - (d) Occupational health hazards from waste handling

Q4 Define Recycling. Give a detailed account of 7R's of waste recycling along (15)

with their significance in waste management.

- Q5 (a) What are the best practices followed for safe disposal of solid waste, explain in detail? (7½)
- (b) What are the problems associated with open burning and dumping of waste, explain in details? (7½)
- Q6 (a) Give a detailed account of various major products generated from anaerobic digestion of the waste. (7½)
- (b) Elaborate about the different factors influencing composting of waste. (7½)
- Q7 What are the major waste disposal mechanisms to generate energy from the waste, explain in details? (15)
