

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2023

B.Tech-VII Semester (CSE/IT/ECE/CE)

COURSE CODE(CREDITS): 19B1WBT731 (3)

MAX. MARKS: 15

COURSE NAME: Sustainable Technologies for Waste Management

COURSE INSTRUCTORS: Dr. Garlapati Vijay Kumar

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

1. What is the necessity of concentrating on waste management in India and briefly describe the existing scenario's in India by highlighting the main points of urban sewage system and utilized processes? (CO I) (3 M)
2. What are the different health hazards and environmental impacts associated with the solid waste? Explain briefly about the different waste hierarchy rules need to follow for successful waste management? (CO I) (3 M)
3. What do you know about the concepts of "Enhanced Waste Management (EWM) and Enhanced Landfill Mining (ELFM)? Depict the different Waste to Energy technologies with a neat figure? (CO II) (3 M)
4. What are the advantages of using refused-derived fuel for Waste to Energy and Waste to Product schemes? Tabulate the typical Reaction Conditions and Products obtained from Pyrolysis, Gasification, Incineration, and Plasma-Based Processes? (CO II) (3 M)
5. Write a note on "Why E-waste is considered as hazardous? Give an emphasis on usage of biotechnological approaches for e-waste treatment? Write any two names of firms / industries involved in e-waste business segment? (CO I & CO II) (3 M)

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