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SARDAR PATEL UNIVERSITY
VALLABH VIDYANAGAR
B. Sc. SIXTH SEMESTER EXAMINATION

2016

FRIDAY 1st APRIL

2:30 TO 5:30 pm

USO6CENV 03

(Waste Management)

TOTAL MARKS 70

- Note:** 1. Answers of all the questions (including multiple choice questions) should be written in the provided answer sheet
2. Draw neat and labeled diagram wherever necessary

Q1 Answer the following multiple choice questions (10)

1. Disinfection is mainly a part of _____ treatment
(a) Tertiary (b) Secondary (c) Primary (d) Pre-Primary
2. In development of CETP _____ % of total cost is assisted by central subsidy
(a) 25 (b) 30 (c) 35 (d) 40
3. COD has _____ mg/L inlet standard for CETP
(a) 3000 (b) 2500 (c) 2000 (d) 1500
4. Paper, Cardboard, Plastics, Textiles, Leathers, Wood furniture and garden trimming are _____ type of waste
(a) Noncombustible rubbish (b) combustible rubbish
(c) Special waste (d) demolition waste
5. _____ has 100% recyclable property
(a) Glass (b) Plastic (c) Paper (d) Cardboard
6. Animal waste is included in Category _____ of Schedule 1
(a) 1 (b) 2 (c) 3 (d) 4
7. Untreated biomedical waste can be stored for not more than _____ hours
(a) 24 (b) 36 (c) 48 (d) 72
8. _____ is not a type of major source of hazardous waste
(a) Generator (b) Treaters (c) Traders (d) Disposers
9. In pulp and paper industry fibers are partially dewatered in cylindrical screen called _____
(a) Jordan (b) Beater (c) Screed (d) Decker
10. _____ breaks up and disperses milk fat throughout the milk to prevent cream from rising to the top
(a) Homogenization (b) Pasteurization (c) Dried milk plant (d) Cheese plant

Q2. Answer the following questions. (Any ten) (20)

1. Write objectives of CETP
2. How flocculation is used as physical treatment?
3. Write about conducting a waste inventory as technological aspect of CETP
4. Write about landfilling
5. Enlist the sources of food waste & special waste
6. Discuss the physical properties of municipal solid waste
7. Define biomedical waste
8. Enlist the sources of biomedical waste
9. Write note on toxicity as a characteristic of hazardous waste
10. Enlist dry and wet operations in textile industry
11. Explain in brief the biological treatment of dairy waste
12. Explain Kraft's process

Q3. Explain the waste water treatment with an appropriate diagram (10)

OR

Q3. Give a detailed account of CETP (10)

Q4. Write note on:

- (a) Transfer stations and different methods to transport solid waste (06)
- (b) Types of collection systems for solid waste (04)

OR

Q4. Write note on:

- (a) Recycling of Glass and paper (06)
- (b) On site handling of solid waste (04)

Q5. (a) Give an account of categories of biomedical waste according to Schedule 1 (07)

- (b) Discuss the colour coding and type of container for disposal of biomedical waste (03)

OR

Q5. (a) Discuss major sources of hazardous waste (06)

- (b) With a labeled diagram describe bubbling fluidized bed incineration (04)

Q6. (a) Write about the treatment of waste from pulp and paper mill (07)

- (b) Explain the picking method in textile industry (03)

OR

Q6. (a) Discuss the dairy processing activities (07)

- (b) Enlist the sources of waste from Tanning industry (03)

ALL THE BEST