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SEAT No. _____

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

2019

FRIDAY 29th MARCH

10:00 am TO 01:00 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. In development of CETP _____ % of total cost is assisted by central subsidy
(a) 25 (b) 30 (c) 35 (d) 40
2. Disinfection is mainly a part of _____ treatment
(a) Tertiary (b) Secondary (c) Primary (d) Pre-Primary
3. 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
4. _____ is determined using bomb calorimeter
(a) Density (b) Bulk density (c) Calorific value (d) Moisture content
5. _____ has 100% recyclable property
(a) Glass (b) Plastic (c) Paper (d) Cardboard
6. Untreated biomedical waste can be stored for not more than _____ hours
(a) 24 (b) 36 (c) 48 (d) 72
7. _____ is not a type of major source of hazardous waste
(a) Generator (b) Treaters (c) Traders (d) Disposers
8. Circulating Fluid Bed Incineration has temperature range between _____ ° F
(a) 1200 to 1400 (b) 1400 to 1600 (c) 1600 to 1800 (d) 1800 to 2000
9. In pulp and paper industry fibers are partially dewatered in cylindrical screen called _____
(a) Jordan (b) Beater (c) Screed (d) Decker
10. _____ is the single most costly step in converting cotton fibers to yarn
(a) Weaving (b) Spinning (c) Drawing (d) None of these

(1)

(P.T.O.)

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

1. Enlist the waste water treatment processes
2. How flocculation is used as physical treatment?
3. Write about conducting a waste inventory as technological aspect of CETP
4. What are hazardous wastes?
5. Enlist the sources of special wastes in municipal solid waste stream
6. Write in brief about landfilling
7. Define biomedical waste
8. Enlist the sources of biomedical waste
9. Write about Bubbling Fluidized Bed Incineration
10. Explain Kraft's process
11. Enlist the pollutants released from textile mill
12. What are the sources of waste from sugar industry?

Q3. With a schematic diagram explain the treatment process of waste water (10)

OR

Q3. Give a detailed account of CETP (10)

Q4. Write note on:

- (a) Recycling of paper and plastic (07)
- (b) Types of collection systems for solid waste (03)

OR

Q4. Write note on:

- (a) Transfer stations and different methods to transport solid waste (06)
- (b) On site handling of solid waste (04)

Q.5. (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

Q.5. (a) Discuss major sources of hazardous waste (06)

- (b) Enlist the characteristics of hazardous substances (04)

Q.6. (a) Explain the process of manufacturing and waste treatment in paper and pulp industry (07)

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

OR

Q.6. (a) Give a detailed account of Dairy processing activities (07)

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