

JK LAKSHMIPAT UNIVERSITY, JAIPUR

INSTITUTE OF ENGINEERING AND TECHNOLOGY

End Term Examination (Regular/Backlog), November 2016

B. Tech in Civil Engineering, Semester VI

Roll No.....

COURSE CODE: (CE-621)

Time: 3 hours

Max. Marks: 100

COURSE TITLE: Hazardous and Solid Waste
Management

Instructions to students:

1. Do not write anything other than your roll number on question paper.
 2. Assume suitable data wherever required and mention it clearly.
 3. Writing appropriate units, nomenclature, and drawing neat sketches/schematics/ flow chart wherever, required are an integral part of the answer.
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Q.1A Objective type multiple choice questions (10 questions @ 1 mark) 10

- I. Which is an biotic condition
 - (a) soil
 - (b) water
 - (c) temperature
 - (d) bacteria
- II. The greenhouse effect
 - A) related to global warming
 - b) UV & IR radiation play important role
 - c) carbon dioxide increase the greenhouse effect
 - d) All of the above
- III. In Ecosystem
 - a) producer are independent
 - b) primary consumer depend on producer
 - c) Both a & b
 - d) None
- IV. mRDF is
 - a) reused derived fuel
 - b) Mass refused derived fuel
 - c) retention disposal of fluid
 - d) all of the above
- V. Disposal of hospital solid waste which technique is effective for it
 - a) incineration
 - b) dumping it in open area
 - c) landfilling
 - d) all of the above
- VI. BOD is
 - a) indication of the extent pollution
 - b) Greater BOD , greater the pollution
 - c) define quantity of DO in water
 - d) all of the above
- VII. Food chain and food web are define as
 - a) the relation between producer and consumer

- b) the relation between producer and human
 c) the relation between producer and decomposer
 d) None
- VIII Solid waste quantity direct affect from
 a) daily activities of society b) population density
 c) no effective method of waste disposal d) Both a & b
- IX HDPE is
 a) High density polyethylene b) high disperse polyethylene
 c) None d) All of the above.
- X Air density classification is related to
 a) separation of MSW b) Paper& plastic separation from MSW
 c) separate light metal d) None
- Q.2 Short answer type questions (4 questions @ 2.5 marks) 10
- 1 Explain the all
 1. EIA 2. Biomass pyramid
- 2 A) Food chain B) Food web
- 3 A) Ecosystem B) Decomposer
- 4 Flow chart of hydrological cycle
- Q.3A Explain the phosphorous cycle in detail give the flow diagram of cycle. 05
- Q.3B Give the systematic collection and transportation system of solid waste 05
 in your city .
- Q.4A Give the flow chart for yard wastes. 05
- Q.4B Discuss the structure and function of ecosystem 05
- Q.5A Submit your suggestion how you can reduce the solid waste. 05
- Q.5B What is RDF? Explain it principal and uses for solid waste management . 05
- Q.6A Write a note on aerobic digestion of organic waste. 05
- Q.6B Describe the various landfill techniques for municipal solid waste 05
 disposal with diagram.
- OR
- Q.6B Define the solid waste and give a note of solid waste generation in JKLU 05
 campus.
- Q.7A Write short note on a leachate how these materials affect the 05
 environment.
- Q.7B Short note on hazardous solid waste. 05
- OR
- Q.7B Write the short note on types of solid wastes. 05

Q.8A Discuss the sulphur cycle in detail with flow chart. 10

Q.9A Explain the various major and minor factors which affect the quantity of solid waste in JKLU campus. 10

Q.9B Discuss "Population of India- is good or bad for environment." 10

OR

Q.9B What types of waste recover from Jaipur municipal dumping yard and which method you will suggest to Jaipur municipal for sustainable solid waste management? 10