

**UNIVERSITY OF CALCUTTA**

ENVIRONMENTAL STUDIES  
PROJECT  
ON

WASTE MANAGEMENT  
WITH SPECIAL EMPHASIS TO KOLKATA

**B. Com 2nd Sem (Hons./Gen.)  
Examination - 2020**

NAME

COLLEGE ROLL NO.

SECTION

REG. NO.

**UMESCHANDRA COLLEGE**

**13, Surya Sen Street,  
Kolkata - 700 012**

**OR**

**Address of Extended Campus, Salt Lake**

**UNIVERSITY OF CALCUTTA**

**ENVIRONMENTAL STUDIES  
PROJECT  
ON**

**WASTE MANAGEMENT  
(WITH SPECIAL EMPHASIS TO KOLKATA)**

**SUBMITTED  
BY**

NAME : .....

COLLEGE ROLL NO. .... SECTION .....

REGD. NO. .... OF 2019-20

**UMESCHANDRA COLLEGE**

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## BASIC INFORMATION ABOUT ENVS PAPER

- IT IS A 100 MARKS PAPER FOR 2ND/6TH SEMESTER STUDENTS
- DIVISION OF MARKS - 100 (F.M.) (CREDIT - 2)
  - A) INTERNAL ASSESSMENT - 10 MARKS
  - B) ATTENDANCE - 10 MARKS
  - C) THEORY (MCQ TYPE) - 50 MARKS
  - D) PROJECT - 30 MARKS
- MARKS OBTAINED IN THIS COURSE WILL BE TAKEN TO CALCULATE SGPA & CGPA.
- IT IS A COMPULSORY PAPER BOTH FOR HONS. AND GENERAL.
- IT IS A COMPULSORY TO SUBMIT THE PROJECT AND SIT FOR THE EXAM.

## GUIDELINES RELATED TO ENVS PROJECT WORK (30 marks)

- SAME TOPIC FOR BOTH HONS. & GEN. (OF BOTH CAMPUSES)
- THE WHOLE PROJECT REPORT MUST BE COMPUTER-TYPED.
- TYPE ON A-4 SIZE PAPER ONLY ON RIGHT HAND SIDE WITH MARGINS ON FOUR SIDES OF THE PAGE.
- PAGE LIMIT 35-40 PAGES.
- AT LEAST 5(FIVE) COLOURED PICTURES MUST BE GIVEN
- ALL PICTURE / DIAGRAMS / DATA SHOULD BE GIVEN / PASTED ON LEFT HAND SIDE WITHIN BOX CAPTIONS AND FIG. NO.
- PROJECT REPORT MUST BE SPIRALLY BOUNDED (ONLY ONE COPY)
- TO BE SUBMITTED WITHIN FIXED DATE

- STUDENT MUST BRING ONE XEROX COPY OF THE FRONT PAGE AT THE TIME OF SUBMISSION AND AT THE TIME OF SUBMISSION CANDIDATE MUST BE PHYSICALLY PRESENT.
- EXPAND THE POINTS GIVEN IN ALL CHAPTERS
- WRITE THE PROJECT REPORT IN YOUR OWN WORDS (as far as practicable).

# 1

## INTRODUCTION

### Points

- 1.1 Define Waste
- 1.2 Discuss in brief about the Different types of Waste
- 1.3.1 Importance of Waste Management for a fast growing city like Kolkata
- 1.3.2 Present Position of Waste Management in Kolkata.
- 1.3.3 ~~\_\_\_\_\_~~ of Waste Management in Kolkata.  
FUTURE

(Total 2-3 pages)

# 2

## SOURCES AND CLASSIFICATION OF WASTE

Points

### 2.1 SOURCES OF WASTE

- a) Municipal Waste
- b) Agricultural Waste
- c) Commercial Waste
- d) Industrial Waste
- e) Electronics or E-Waste
- f) Biomedical Waste

### 2.2 CLASSIFICATION OF WASTE

#### A. URBAN :

1. Solid
  - a) Municipal Solid Waste
  - b) Construction and Demolition
2. Liquid
  - a) Sewage and Sludge

#### B. INDUSTRIAL :

1. Solid
  - a) Hazardous
  - b) Non-Hazardous

#### C. BIO MEDICAL :

#### D. ELECTRONICS OR E-WASTE :

(Total 3-4 Pages)

# 3

## WASTE MANAGEMENT AND DISPOSAL FUNCTIONS OF WETLANDS

From Contents

### Points

3.1. Definition of Waste Management and its Requirements.

3.2. Methods of Waste Disposal

3.2.1 Incineration

3.2.2 Gasification

3.2.3 Pyrolysis

3.2.4 Plasma Gassification

3.2.5 Composting

3.2.6 Sanitary Landfills

3.2.7 Anaerobic digestion

3.3 Briefly discuss about 3 R's - REDUCE, RECYCLE and REUSE

(Total 4-5 Pages)

# 4

## IMPACTS OF WASTE ACCUMULATION

### Points

4.1. Ecological Effects

4.2. Effects on Health & Hygiene

4.3. Pollution as an Impact of the Waste Accumulation

(Total 2-3 Pages)

# 5

## WASTE MANAGEMENT SCENARIO IN KOLKATA

### Points

5.1. Kolkata's Landfill Crisis : Sole dependency on Dhapa :

5.2. Measures taken by the KMC / to manage the waste

5.3. Characteristics generation and methods of Waste Collection by KMC (Municipal Waste)

5.4. Sustainable solution to Existing Problems

[with examples if possible]

[With Pictures / Diagrams / Data etc.]

(Total 3-4 Pages)

# 6

## LEGISLATIVE MEASURES IN HANDLING & MANAGEMENT OF WASTE

### Points

- 6.1. Municipal Solid Waste (Management & Handling) Rules, 2000.
- 6.2 The Bio-Medical Waste (Management & Handling) Rules, 1998.
- 6.3 Hazardous Waste (Management and Handling and Transboundary Movement) 2008.
- 6.4 The Plastic Waste (Management & Handling) Rules, 2011.
- 6.5 E-Waste Management & Handling) Rules, 2011.

(Total 2-3 Pages)

# 7

## CONCLUSION

● (Expand your observations in your own words)

(Total 3 Pages)

## ACKNOWLEDGEMENT

Thanks given Page :

Write separately in paras giving

Thanks to :

University of Calcutta  
Umeshchandra College  
Principal, Dr. Md. Tofazzal Haque  
Head of the Department, Prof. P. R. Das  
Prof. Md. Fahad Haque  
Non-Teaching Staff  
Students' Union  
Parents  
Friends.

(Total 1 Pages)

# 9

## BIBLIOGRAHY

Mention the sources of Secondary Data / Books / Journals / Periodicals / Internet. i.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

(Total 1 Pages)