

M.TECH/RE/3RD SEM/REEN 6143/2021
ENVIRONMENT IMPACT ASSESSMENT
(REEN 6143)

Time Allotted : 3 hrs

Full Marks : 70

Figures out of the right margin indicate full marks.

*Candidates are required to answer Group A and
any 5 (five) from Group B to E, taking at least one from each group.*

Candidates are required to give answer in their own words as far as practicable.

Group – A
(Multiple Choice Type Questions)

1. Choose the correct alternative for the following: **10 × 1 = 10**
- (i) The theme of World Environment Day 2021 was related to:
(a) Ecosystem Restoration (b) Beat Plastic Pollution
(c) Air Pollution (d) Desert & Desertification.
- (ii) As per the CPCB standard for Type B water signifies
(a) Untreated Sewage
(b) Water having requisite Bathing Standard
(c) Drinking Water
(d) Treated wastewater for irrigation purpose.
- (iii) A plant manufacturing Solar PV module is considered as
(a) White Category Industry (b) Orange Category Industry
(c) Red Category Industry (d) Green Category Industry.
- (iv) Identify the Environment Act/Rules which is related with genesis of CPCB, India
(a) Water Act (b) Bengal Smoke Nuisance Act
(c) Air Act (d) E-waste (Management) Rules.
- (v) Black water is also termed as:
(a) Sullage (b) Grit (c) Moss (d) Sewage.
- (vi) The extended aeration system does not require:
(a) Aerator (b) Primary clarifier
(c) Skilled operator (d) Electric Power.
- (vii) OSHAS 18000 series is related to Certification of _____ Standard.
(a) Occupational health & safety
(b) Environmental management
(c) Quality Management
(d) Design of Environment Protection Equipments.

- (viii) The Root-zone/Reed Bed Treatment uses
(a) Neem (b) Zoo Plankton
(c) Babul (d) Typha elephantiana.
- (ix) Identify the parameter which need not be considered in EIA report
(a) Religious belief of Community (b) Air Quality
(c) Water Quality (d) Flora & Fauna.
- (x) Blue-Light Hazard is associated with
(a) LED Light (b) CFL
(c) X-ray (d) Nichrome Filament Light.

Group - B

2. (a) What do you mean by primary and secondary air pollutants. Give one example of both. [(CO3) (Remember/LOCQ)]
(b) Discuss the Principle and Operation of a High Volume Sampler. [(CO3) (Analyze/IOCQ)]
- 5 + 7 = 12**
3. (a) Analyze in brief the significance of Water Act 1974.
(b) Enumerate the steps of obtaining Consent to Establish of a Solar Power Plant. [(CO3) (Analyze/IOCQ)]
- 6 + 6 = 12**

Group - C

4. Discuss the construction and operation of a Trickling Filter required to be set up for a medium sized Renewable Energy Industry with a workman force of 1000 per day with a neat sketch. [(CO3) (Evaluate/HOCQ)]
- 12**

5. Find L_0 from industrial BOD Data using Fujimoto method. [(CO3)(Evaluate/HOCQ)]

t (day)	0	1	2	3	4	5	6	7
BOD mg/l	0	55	102	134	156	178	196	207

12

Group - D

6. Analyze the Hazardous aspects associated with a Wind Mill and other related endeavours associated with this Renewable Energy Installation. [(CO2) (Analyze/IOCQ)]
- 12**
7. Discuss an E-waste management plan following the statutory provisions in our country with a block diagram. [(CO2) (Remember/LOCQ)]
- 12**

Group - E

8. Write technical notes on Rapid EIA and Comprehensive EIA. [(CO3) (Analyze/IOCQ)]
(6 + 6) = 12

9. Write Technical notes on:

- (i) Hazards associated with CFL and how it is modified using LED lights.
(ii) Rain Water Harvesting In a Solar Power Plant. [(CO4) (Analyze/IOCQ)]

(6 + 6) = 12

Cognition Level	LOCQ	IOCQ	HOCQ
Percentage distribution	17.7	57.3	25.0

Course Outcomes (CO):

At the end of the course the students should be able:

1. The students will be able to identify and analyze the Basics of Environmental Engineering Principles and legislations prevalent in India under the purview of Renewable Energy field.
2. The students will be able to conduct EIA Studies.
3. The students will be able to identify new technologies suitable to get EIA certification.
4. The students will be able to implement Do's & Don'ts practices for Renewable Energy Endeavours.

*LOCQ: Lower Order Cognitive Question; IOCQ: Intermediate Order Cognitive Question;
HOCQ: Higher Order Cognitive Question

Department & Section	Submission link:
RE	https://classroom.google.com/c/MTIyNDg5MTI3ODM5/a/NDY0MTk0ODcxNDcy/details