

**SECTION A**  
**(ANSWER ALL QUESTIONS)**

1. Write short notes or explain briefly the followings:
- Air Act.
  - BOD test.
  - Properties of the Tailings.
  - Water Act.
- (5\*4=20)

**SECTION B**  
**(ANSWER 2, 3, 4 and EITHER 5 OR 6)**

2. a) Briefly explain the damage criteria due to blasting.  
b) Give the Permissible Standards of PPV in mine areas. (4+6)
3. Briefly highlight the process of reclamation of waste dumps in a lignite mine. (10)
4. a) Discuss the various water pollution from Mining.  
b) If the Sound Pressure Level measured is  $5 \times 10^{-4}$  Pa, find the Noise Level in dB(A), Given  $P_0 = 2 \times 10^{-5}$  N/m<sup>2</sup>. (8+2)
5. a) Discuss ANY THREE Predictor equation for ground vibration.  
b) The noise level of a particular location was measured as 75 dB(A), 85 dB(A) and 90 dB(A) during one hour. Calculate the average Noise Level at that area. (6+4)

OR

6. a) State the Essential Drinking water standards as per BIS.  
b) Discuss the effect of BOD/COD in Water Pollution. (6+4)

**SECTION C**  
**(ANSWER 7 and 8 OR 7 and 9)**

7. a) Discuss the Components of various Tailings facility design.  
b) Briefly explain the contents of an Environment Management Plan. (8+12)
8. a) What are the factors responsible for Flyrock? How to control them?  
b) What are the contents for the report of Tailings Audit?  
c) What are the objectives of Tailing Disposal? (7+8+5)

OR

9. a) Discuss briefly the various Tailing dam design methods. Which one is the best and why?  
b) Discuss ANY SIX water quality standards for water used in industries and their effects.  
(8+12)

Roll No: -----

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, December, 2017**



**Program Name: B.Tech. in Mining Engineering**

**Course Name : Environmental Pollution & Control Strategies**

**Course Code : MIEG 442**

**No. of page/s: 2**

**Semester – VII**

**Max. Marks : 100**

**Duration : 3 Hrs**

**SECTION A**

**(ANSWER ALL QUESTIONS)**

1. Write short notes or explain briefly the followings:

- a) Objectives of the Tailing Disposal
- b) Wave properties for Ground Vibration.
- c) Indian Standards for ambient Noise Levels.
- d) Environment Act.

(5\*4=20)

**SECTION B**

**(ANSWER 2, 3, 4 and EITHER 5 OR 6)**

2. Discuss the Air quality Standards for a New Coal Mine for concentration of the pollutants. (10)

3. a) Discuss the damage criteria for ground vibration as per DGMS.

b) What are the preventions of noise pollution at Source? (6+4)

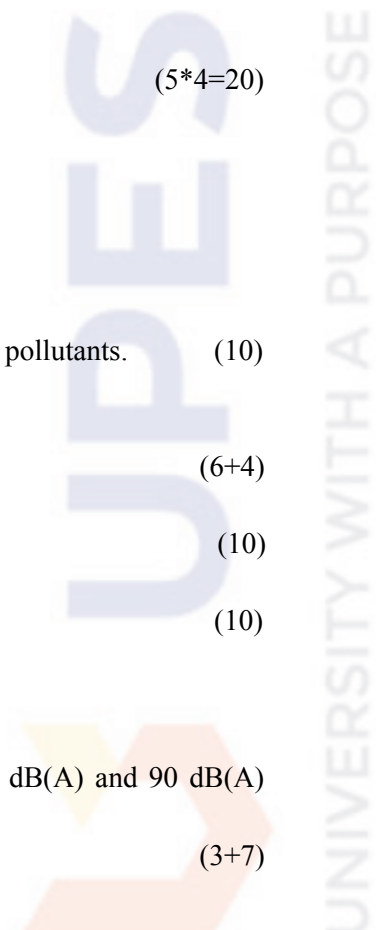
4. What do you mean by EIA? Explain in steps the general EIA process. (10)

5. Briefly explain the contents of a Mine Closure plan. (10)

OR

6. a) The noise level of a particular location was measured as 75 dB(A), 85 dB(A) and 90 dB(A) during one hour. Calculate the average Noise Level at that area.

b) What are the various sources of Flyrock in an opencast mine? (3+7)



**SECTION C**  
**(ANSWER 7 and 8 OR 7 and 9)**

7. a) Describe the environmental clearance process followed for mining projects in India.
- b) Discuss the Components of various Tailings facility design. (10+10)
8. a) Explain briefly the various Tailing dam design methods. Which one is the best and why?
- b) Define: Overpressure and Attenuation.
- c) What are the impacts of a Noise? (10+3+7)

OR

9. a) What do you mean by reclamation and restoration? What are the logical steps that should be followed for reclamation of an opencast coal mine with high stripping ratio?
- b) What are the factors on which Ground Vibration depend?
- c) What is Day-night equivalent Noise level? (10+7+3)

