

Uka Tarsadia University (Diwaliba Polytechnic)
Diploma in Environmental Engineering
Assignment (Environmental Monitoring-020060602)

Unit-1 Environmental monitoring and Associated Problems

1. Write objectives and functions of environmental monitoring.
2. Write in details about selection of monitoring sites.
3. Write in details about monitoring program.
4. Explain environmental variability in details.
5. Write a note on time and location of environmental monitoring.
6. Explain in details about monitoring sites and monitoring program.
7. Explain in details about Selection of monitoring sites.
8. Explain objectives and functions of environmental monitoring.
9. Write purpose of environmental monitoring.
10. Write any 2 methods of environmental monitoring.
11. Explain different types of environmental monitoring.
12. Define environmental monitoring and explain any 2 types of monitoring.
13. Which techniques are used for environmental monitoring and explain any 2 techniques?
14. What is em?
15. What is monitoring site?
16. What is monitoring program?

Unit-2 Quality Assurance

1. Write a note on grab sampling, composite sampling.
2. Write a note on integrated composite sampling.
3. Write methods of sample preservation techniques.
4. Write note on collection of sample and labelling of sample.
5. Enlist types of sampling and explain any 2 types of sampling.
6. Write a note on sampling frequency and preservation of sample.
7. Explain location of sampling point for water sample.
8. Write a note on sampling frequency for microbiological analysis.
9. Write a note on sampling frequency for physicochemical analysis.
10. Which reagent used in preservatives for water sample?
11. Write a note on sample handling and preparation checklist for monitoring.
12. Define following terms: grab sampling, composite sampling, and integrated composite sampling.
13. Explain sample preservation technique in details.
14. Write a note on time interval of water sample and analysis of sample.
15. Explain in details about different preservation technique for water sample.
16. What is preservation?
17. How to collect water sample?
18. How to labelling on container for collection of sample?

Unit-3 Quality control

1. What is primary standard?
2. What is normality and molarity?
3. What is standardization?
4. Explain serial dilution.
5. What is secondary standard?
6. What is stock solution?
7. What is mass percent solution give with example?
8. What is volume percent solution give with example?
9. What are some examples of primary standard solutions?
10. What are some examples of secondary standard solutions?
11. What is primary standard solution and how to prepare primary standard give examples?
12. What is secondary standard solution and write procedure of secondary standard?
13. What is normality and molarity give with examples?
14. How to standardize solution given with examples?
15. Write properties of primary standard.
16. How to prepare primary standard?
17. Write a note on molarity, normality and percentage solution.
18. What is serial dilution explain in details?
19. Write procedure of standardization.
20. Define following terms: molarity, normality and standardization.
21. How to prepare potassium dichromate as primary standard?
22. Write properties of secondary standard.
23. Write a note on serial dilution.
24. How to prepare Koh?
25. Write procedure of FAS.

Unit-4 Errors and Treatment of Analytical Data

1. What is error? explain any 2 types of error in details.
2. Write a note on accuracy and precision.
3. Write a note on random error and intermediate error.
4. Write a note on any 2 method of error.
5. Write a note on environmental error and instrumental error.
6. Enlist types of error and explain any 2 types of error.
7. Explain in details about absolute error and gross error.
8. Write sources of measurement error.
9. Write difference between accuracy and precision.
10. Write in details about propagation of error.
11. Distinguish between gross error and systematic error and Write down two possible sources of systematic error.
12. Write purpose of error analysis.
13. What are different sources of error?
14. What is systematic error?
15. What is standard deviation?

16. Write formula for standard deviation.
17. How to calculate error and minimize that error?
18. Write formula for standard deviation.

Unit-5 Water Quality Monitoring

1. Enlist different types of colour and write colour procedure.
2. What is odour and taste?
3. Enlist types of solids and Write procedure for total suspended solid, total dissolved solid.
4. Write a note on pH.
5. Write a short note on oil and grease.
6. What is COD? Write procedure of COD.
7. Enlist types of hardness and explain temporary and permanent hardness with procedure.
8. Write a note on turbidity.
9. What is acidity? Write procedure for acidity in water sample.
10. Write a note on sulphate.
11. Write a note on BOD.
12. Write a need of monitoring.
13. Write purpose of ambient air quality monitoring.
14. Write a note on air sampling techniques.
15. What is Monitoring?
16. How to collect water sample?
17. Write preservation technique of water sample.

Unit-6 Air Quality Monitoring

1. Write a note on ambient air quality monitoring.
2. Write sources of air quality monitoring.
3. What is nitrogen dioxide and write procedure of nitrogen dioxide?
4. Write a note on carbon monoxide.
5. What is particulate matter? Write a note on SPM.
6. Write a note on sulphur dioxide.
7. Explain sampling time and sampling location for air quality monitoring?
8. How to select measure sites for ambient monitoring?
9. Define following terms: ambient air monitoring, Suspended particulate matter.
10. What is emission monitoring explain in details?
11. Continuous monitoring methods and Gravimetric particulate methods explain in details.
12. Write a need of monitoring.
13. What is ambient?
14. What is air quality monitoring?
15. What is carbon monoxide?
16. How to collect air sample?