1. What is sampling in statistics? Explain different sampling methods
2. What is the Binomial Probability Formula?
3. What are correlation and covariance in statistics?
4. What is Poisson distribution?
5. Illustrate central limit theorem with a neat diagram.
6. Explain pdf and cdf in detail.
7. Explain normal distribution in detail.
8. Discuss random variables with an example in detail.
9. Explain quantile
10. Define median
11. What is mode
12. Explain Quartile
13. What are different data types?
14. Define mean, weighted mean, median, weighted median, percentile, trimmed mean
15. What do you mean by std. Deviation, mean absolute deviation and median absolute deviation
16. Explain IQR(Inter quartile range)
17. Draw boxplot, frequency table and histogram for given data
18. Write a short note on skewness and kurtosis
19. What do you understand from correlation coefficient value?
20. Give example of any contingency table and explain
21. What is hexagonal binning?
22. What is contour plot?
23. Describe violin plot.
24. Write a short note on bootstrap sampling
25. Write the properties of normal distribution
26. What is the use of QQ Plot
27. What is the use of scatter plot?
28. Explain the student’s t distribution properties
29. **What is the confidence interval?**
30. **What is bootstrapping?**
31. **What is sample bias?**
32. Define Degree of freedom?
33. Compare Long Tail Distribution and Student t distribution?
34. Define A/B Testing?
35. Define Null and alternate Hypothesis?
36. How is one way and two way hypothesis test different ?
37. What are proxy variables
38. Define p value, Significance level,Type 1 Error, Type 2 erroe