Important questions list

Statistics :

Unit 1- Sampling distribution

a. Central limit theorem with defn of sampling distribution of mean and proportion (important for 5 marks short question or definition only for 1 marks,)
b. Estimation ,its methods and properties of good estimator(imp for 5 marks theory)
c. One numerical question confidence interval est, sample size finding & standard error finding (imp for 5 marks)

Unit 2- Testing of hypothesis

a. Steps in testing of hypothesis (imp for 5 marks theory)
b. (definition only) Power of test, level of significance, critical region, one tailed two tailed test (important for 1 marks theory)
c. Types of hypothesis and types of error in hypothesis (imp for 5 marks theory)
d. Numericals 10 to 15 marks fixed

Unit 3- Non parametric testing

a. Definition of parametric and non parametric test (imp for 1 marks)
b. Steps of all Non parametric test (may ask for 5 marks, if not, then imp for viva)
c. Numericals 20 to 25 marks (Run test, kolmorov smirnov test, wilcoxon, chi square, mann whitney, friedman and kruskal wali tests are very important)

Unit 4- Multiple correlation and regression

a. One 10 marks numerical from multiple regression
b. One 5 marks from multiple and partial correlation

Unit 5- Design of experiment

a. Experimental design definition and principles (may ask for 5 marks theory)
b. CRD,RBD,LSD definition with advantage and disadvantage (may ask for marks theory)
c. Numericals 15 to 20 marks (focus on missing plot, efficiency type numericals)

Unit 6- Stochastic process

a. Markov process, markov chain and its characteristics (important for 5 marks)
b. One numerical important (predicting weather type)
c. Either 5 marks theory or 5 marks numericals from queuing system important

Numerical Methods :

Important for 10 Marks

- LU factorization
- Horners method algorithm and program
- Differential equation solving
- Interpolation types (with algorithm and program)
- Formula derivation of equations root finding methods &convergence , disadvantages(half interval, newton raphson, secant method)
- Gauss elimination , naive gauss elimination, partial pivoting, gauss jordan (one may ask for sure)
- shooting method algorithm and program (very imp, may ask this year)

Remaining others important for 5 marks

Computer Graphics :

Important for 10 marks

- Cohen sutherland , lian brasky algorithm (numericals and algo)
- window to viewport transformation with added theory
- Boundary representations techniques
- BSP method(frequently asked, may ask this year)
- One numerical and theory from 3d transformation
- Painters and A buffer algorithm with added theory
- One from virtual reality chapter and polygon drawing code ,opengl
- raster scan , vector scan display architecture
- circle and ellipse drawing algorithm with added theory

Others remaining important for 5 marks

Data strucutres and algorithm:

Important for 10 marks

- STACK and QUEUE definitions with operations and applications
- Types of linked list with their implementation and their differences and insertion, deletion of nodes in various linked lists
- Shortest paths finding algorithm may ask
- Conversion Infix ,prefix, postfix
- Tree and graph traversal techniques
- Sorting algorithm with definition and sort the given array using the mentioned sorting algorithm

Others may ask in 5 marks