

Final Syllabus

1. $10! = 3628800$
2. The player well shuffles the pack of 52 playing card, then the probability of a black card from 52 playing cards is: $13/52$
3. The probability of drawing a 'jack card 'from 52 playing cards is: $4/2$
4. Which dispersion is used to compare variation of two series? **Q.D**
5. All the values fall on the same straight line and the line has a positive slope then what will be the value of the correlation coefficient 'r': $r = +1$
6. Regression line $Y = a + bX$, the value of the correlation coefficient will be zero if: **Intercept $a = 0$**
7. When two coins are tossed the probability of at least one head is: $3/4$
8. Which one of the following measurement does *not* divide a set of observations into equal parts?
curve has a longer tail to the right, it is called : **standard deviations**
9. the model $Y = mX + a$, Y is also known as the: **Predicted variable**
10. According to empirical rule approximately 95% of the measurements will fall under which interval? **$X=2S$**
11. Which one of the following is written at the top of the table? **Title**
12. The curve has a longer tail to the right, it is called: **Positively skewed**
13. Which one of the following is the class frequency? **The number of observations in each class**
14. If X $f(x)$ is a discrete random variable, then the function: **A distribution function**
15. Which one of the following graphs is used for a time series data?
Histogram
16. If you connect the mid-points of rectangles in a histogram by a series of lines that also touches the x-axis from both ends, what will you gets?
Frequency curve
17. If mean of the two observations is 10.5, then median of these two observations will be: **10.5**

18. Which one is the formula of mid range: $\frac{x_0 + x_m}{2}$
19. Which one of the following is not included in measures of central tendency: **Quartile deviation**
20. For the given data 2, 3, 7, 0, -8 G. M will be: **Undefined**
21. For a particular data the value of Pearson's coefficient of skewness is greater than zero. What will be the shape of distribution? **Positively skewed**
22. In measures of relative dispersion unit of measurement is: **Vanish**
23. The F-distribution always ranges from: **0 to $+\infty$**
24. In chi-square test of independence the degrees of freedom are: **$n - p$**
25. The Chi-Square distribution is continuous distribution ranging from: **$0 \leq \chi^2 \leq \infty$**
26. If X and Y are random variables, then $E(X - Y)$ is equal to: **$E(X) - E(Y)$**
27. If \hat{y} is the predicted value for a given x-value and b is the y-intercept then the equation of a regression line for an independent variable x and a dependent variable y is: **$\hat{y} = mx + b$, where m = slope**
28. The location of the critical region depends upon: **Alternative hypothesis**
29. The t-Distribution is.....Spread out than the standard normal Distribution. **More**
30. To find the confidence interval for the ratio of two variances we use: **F-Distribution**
31. How many percent of values are less than 4th deciles in a symmetric distribution? **40**
32. The combined distribution of more than two random variables is: **Joint Distribution**
33. The degrees of freedom for a T-test with sample size 14 is: **13**
34. Which of the following is true for the binomial distribution $b(x; n, p)$: **Mean > Variance**
35. What is mf in the formula of mode? **highest frequency**
36. The parameters of the binomial distribution $b(x; n, p)$ are: **n & p**
37. Which of the following is true for the Poisson distribution: **mean = variance**
38. If a significance level of 1% is used rather than 5%, the null hypothesis is: **Less likely to be rejected**
39. The variance of the chi-square distribution is: **$2v$**
40. The degrees of freedom for a t-test with sample size 10 is: **9**
41. The value of χ^2 can never be: **Negative**
42. The total number of samples when sampling is done with replacement: **N^n**
43. ANOVA was introduced by: **R.A Fisher**

44. The test statistic used in analysis of variance procedure follow the distribution.: **F**
45. For testing of hypothesis about population proportion , we use: **Z-test**
46. A die is rolled. What is the probability that the number rolled is greater than 2 and even: **$\frac{1}{3}$ $\frac{2}{6} = \frac{1}{3}$**
47. The probability of drawing a king of spade from a pack of 52 cards is: **$\frac{1}{52}$**
48. An estimator T is said to be unbiased estimator of θ if **$E(T) = \theta$**
49. From point estimation, we always get: **Single value**
50. The best unbiased estimator for population variance: **Sample variance**
51. When c is a constant, then $E(c)$ is: **c**
52. $\text{Var}(4X + 5) =$ **$16 \text{Var}(X) + 5$**
53. When $f(x)$ is continuous probability function, then $P(X = 1)$ is: **0**
54. The hyper geometric random variable is a(an): **Discrete variable**
55. From a sample of 200 people were asked whether they like a particular product. Fifty said 'yes' and remain said 'no', assuming 'yes' means a success, which of the following is correct? **Sample proportion $p=0.25$**
56. In any data set, what percent of values fall in the interval Median \bar{x} $Q.D$? **50 per cent**
57. $\sum_{i=1}^5 X_i = 20$, then $X =$ **0**
58. The height of a student is 60 inches. This is an example of? **Continuous data**
59. In Statistics, we have MSE which is abbreviation of? **Mean square error**
60. The deviation of a distribution from symmetry is called: **Skewness**
61. If E is an impossible event, then $P(E)$ is: **0**
62. If a data set has the even number of observations, the median : **Is the average value of the two middle items when all items are arranged in ascending order**
63. In testing of hypothesis, we always begin it with assumig that: **Null hypothesis is true**
64. If a continuous probability distribution has $k > 2$ then what will be peakedness of the distribution? **Platykurtic**
65. When each outcome of a sample space has equal chance to occur as any other, the outcomes are called: **Equally likely**
66. The LSD test is applied only if the null hypothesis is: **Rejected**

67. Analysis of variance is a procedure that enables us to test the equality of several: **Means**
68. If a random variable X denotes the number of heads when three distinct coins are tossed, the X assumed the values: **0,1,2,3**
69. If X and Y are independent variables, then $E(XY)$ is: **$E(X).E(Y)$**
70. The parameters of the binomial distribution $b(x; n, p)$ are: **n & p**
71. If $P(E)$ is the probability that an event will occur, which of the following must be false: **$P(E) = -1$**
72. The analysis of variance technique is a method for: **Comparing three or more means**
73. The continuity correction factor is used when: **A continuous distribution is used to approximate a discrete distribution**
74. Stem and leaf is more informative when data is : **Less than 100**
75. The branch of Statistics that is concerned with the procedures and methodology for obtaining valid conclusions is called: **Inferential Statistics**
76. Which of the following is a systematic arrangement of data into rows and columns: **Tabulation**
77. In normal distribution Q.D = **0.6745**
78. In normal distribution **2 3**
79. If you connect the mid-points of rectangles in a histogram by a series of lines that also touches the x-axis from both ends, what will you get? **Frequency curve**
80. Which one of the following statements is true regarding a population? **It must be a large number of values**
81. In a simple linear regression model, if it is assumed that the intercept parameter is equal to zero, then: **The slope of the line will also be equal to 0.**
82. The degrees of freedom for a t-test with sample size 10 is: **9**
83. A failing student is passed by an examiner is an example of: **Type II error**
84. Which dispersion is calculated from all the observations? **Standard deviation**
85. Standard deviation of the data 7, 7, 7, 7, 7, 7, 7 is: **0** **Standard deviation will always be zero if all the values in data are same**
86. Which one is the poor measure of dispersion in open-end distribution? **Range**

87. Men tend to marry women who are slightly younger than themselves. Suppose that every man married a woman who was exactly 5 years younger than themselves. Which of the following is correct: **The correlation is 1**
88. Sum of absolute deviations of the values is least when deviations are taken from: **Mean**
89. Which of the following measures of central location is affected most by extreme values: **Mean**
90. Which of the following is a critical value of Z when $1 - \alpha = 95\%$ for one tailed test: **1.96**
91. The difference between expected value of statistic and parameter is called: **Bias**
92. In Statistics, we have MSE which is abbreviation of: **Mean square error**

The following data shows the number of hours worked by 200 statistics students.

<u>Number of Hours</u>	<u>Frequency</u>
0 - 9	40
10 - 19	50
20 - 29	70
30 - 39	40

What is its class interval? **10**

93. The F-distribution has parameter. **Two**
94. The degrees of freedom for a t-test with sample size 6 is: **5**
95. In testing of hypothesis, we always begin it with assuming that **Null hypothesis is true**
96. Mean deviation is always: **Less or equal to S.D**
97. Which formula represents the probability of the complement of event A: **$1 - P(A)$**
98. Ideally the width of confidence interval should be: **0**
99. The probability distribution of a statistic is called the: **Sampling distribution**
100. Two sets A and B are equal if **$A \subseteq B$ and $B \subseteq A$** If two sets A and B are equal we write $A = B$ to designate that relationship.

101. expression $b^2 - 4ac$ under the square root – called the **discriminant**
102. For a particular data the value of Pearson's coefficient of skewness is greater than zero.
103. What will be the shape of distribution? **Positively skewed.**
104. The F-distribution always ranges from: **0 to $+\infty$**
105. The location of the critical region depends upon: **Alternative hypothesis .**
106. To find the confidence interval for the ratio of two variances we use: **F-Distribution**
107. The degrees of freedom for a T-test with sample size 14 is **3 .**
108. The variance of the chi-square distribution is: **v^2 .**
109. The degrees of freedom for a t-test with sample size 10 is: **9.**
110. The value of χ^2 can never be : **Negative.**
111. .For testing of hypothesis about population proportion , we use: **Z-test.**
112. Analysis of variance is a procedure that enables us to test the equality of several: **Means.**
113. The classical definition of probability assumes: **Equally likely events.**
114. MSE stand for mean **square error.**
115. LSD stand for **least significance difference.**