Practical- 9

Discrete & Continuous Probability Distributions

(1) Binomial Distribution

| 1 | A | B | C | D |
|---|---|---|---|---|
| 2 | Binomial Distribution | | | |
| 3 | P | 0.375 | n | 5 |
| 4 | | | | |
| 5 | X | P(x) | | |
| 6 | 0 | | | |
| 7 | 1 | | | |
| 8 | 2 | | | |
| 9 | 3 | | | |
| 10 | 4 | | | |
| 11 | 5 | | | |

Go to B6 and type =BINOMDIST(A6,$D$3,$B$3,FALSE)
And drag the formula up to B11.

(2) Poisson Distribution

| 13 | A | B | C | D |
|---|---|---|---|---|
| 14 | Poisson Distribution | | | |
| 15 | n | 100 | mean | 1 |
| 16 | | | | |
| 17 | x | P(x) | | |
| 18 | 0 | | | |
| 19 | 1 | | | |
| 20 | 2 | | | |
| 21 | 3 | | | |
| 22 | 4 | | | |
| 23 | P(x<=4) | | | |
| 24 | p(x>=4) = 1-p(x<4) = 1-p(x<=3) | | | |

Go to B18 and type =POISSON(A18,$D$15,FALSE)
And drag the formula up to B22.

Go to B23 and type =POISSON(4,1,TRUE).

Go to B24 and type =1-POISSON(3,1,TRUE)

(3) Standard Normal Distribution

| 25 | A | B |
|---|---|---|
| 26 | Standard Normal Distribution | |
| 27 | z | pdf |
| 28 | -3 | |
| 29 | -2.9 | |

Select cells A28 & A39 & drag it up to the cell A88. The entries in the cells from a26 to A86 should be -3 to +3.
Go to cell B28 and type =NORM.S.DIST(A28,FALSE)
And drag the formula upto B88.
Select data A27 to B88 → Insert → Recommended Chart and select Line chart.

Practical- 10

Correlation

| | A | B |
|---|---|---|
| 1 | X | Y |
| 2 | 0 | 2 |
| 3 | 10 | 12 |
| 4 | 2 | 4 |
| 5 | 12 | 14 |
| 6 | 6 | 8 |
| 7 | 10 | 15 |
| 8 | 5 | 8 |
| 9 | 6 | 12 |
| 10 | 12 | 18 |
| 11 | 9 | 15 |

Go to A13 and type

=CORREL(A2:A11,B2:B11) & Enter.

Go to A14 and select Formulas → More Functions → Statistical → CORREL

In the Array1 type A2:A11

In the Array2 type B2:B11

Press OK.