# PROBABILITY & QUEUEING THEORY

<u>DISCLAIMER</u>: I'M NOT RESPONSIBLE IF QUESTIONS FROM EXAM ARE NOT RELEVANT TO THE CONCEPTS MENTIONED BELOW.. ELLARUM ENNA UNGA VEETU PULLAYA NENACHU MANICHIRUNGA!! ເ⊋ ເ⊋

#### **IMPORTANT CONCEPTS:**

#### **UNIT 01** -

- PDF & CDF (4M & 12M)
- ➤ MEAN, VARIANCE, SD (4M)
- ➤ MGF DERIVATION (12M)
- ➤ MGF PROBLEMS (4M)
- > TCHEBYCHEFF'S INEQUALITY (12M) {DICE THROWN...}

#### **UNIT 02** -

- DERIVATION OF MEAN / VARIANCE / SD / MGF BINOMIAL, POISSON (12M)
- > PROBLEMS ON ANY DISTRIBUTIONS BINOMIAL / POISSON / NORMAL DISTRIBUTION (12M)

#### **UNIT 03** -

- > T-TEST (4M)
- > Z-TEST (12M)

#### **UNIT 04** -

- > F-TEST (4M)
- CHI SQUARED TEST (12M)
- QUEUEING THEORY (12M) {READ ALL FORMULAS PROBLEMS ENTIRELY BASED ON FORMULAS}

## **UNIT 05** -

- ➤ MARKOV CHAIN DISTRIBUTION (4M) {STATES & RELATED PARAMETERS}
- > TPM (12M) {BARBER SHOP...., MAN EITHER DRIVES..., THREE PEOPLE THROWING A BALL...,GAMBLER HAS...}

#### NOTE -

- 1) READ ALL THE FORMULAS FROM ALL UNITS THOROUGHLY (SINCE FORMULA ITSELF CARRIES 1 OR 2 MARKS AND CAN BE ASKED IN MCQs)
- 2) DON'T FORGET TO TAKE A PRINTOUT OF STATISTIC TABLE TO EXAM HALL (WITHOUT THAT YOU CAN SOLVE TEST BASED PROBLEMS)
- 3) DON'T FORGET YOUR CALCULATOR

### ALL THE BEST FOR YOUR EXAM 109 (A)

YOUR'S FAITHFULLY,

YOUR FRIEND