# *PRACTICALS*

# *FORTRAN*

# 

# *SUBMITTED TO*

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**PRACTICAL#01**

**PROGRAM: PROGRAM FOR ADDING TWO VALUES IN FORTRAN.**

**LET SAY 2 AND 4**

**INTEGER X1, X2,SUM**

**X1=2**

**X2=4**

**SUM=X1+X2**

**WRITE(\*,\*)’THE SUM OF TWO NUMBERS =’,SUM**

**END**

**STOP**

**PRACTICAL #02**

**PROGRAM: Write a program for Mean, Variance & SD.**

**INTEGER N, X,I,SUMX1,X2**

**REAL MEAN, SD,VAR**

**SUMX1=0**

**SUMX2=0**

**WRITE (\*,\*)’ENTER NO OF OBSERVATIONS PLEASE’**

**READ (\*,\*) N**

**DO 20 I=1**

**WRITE(\*,\*)’ENTER OBSERVATIONS’**

**READ(\*,\*)X**

**SUMX1=SUMX1+X**

**SUMX2=SUMX2+(X\*\*2)**

**20 CONTINUE**

**MEAN=SUMX1/N**

**VAR=((SUMX2/N)-(MEAN\*\*2))**

**SD=SQRT(VAR)**

**WRITE(\*’\*)’MEAN=’,MEAN**

**WRITE(\*’\*)’VARIANCE=’,VAR**

**END**

**STOP**

**PRACTICAL #03**

**PROGRAM: Write a program for calculating t-statistic from sample data.**

**INTEGER N,X,I,SUMX,SUMX2**

**REAL T,MEAN,VAR,SD,SE,MU**

**SUMX=0**

**SUMX2=0**

**WRITE(\*,\*)’ENTER SAMPLE SIZE’**

**READ(\*,\*)N**

**WRITE(\*,\*)’ENTER SAMPLE DATA X’**

**DO 10 I=1 N**

**WRITE(\*,\*)’ENTER OBSERVATION’,I**

**READ(\*,\*)X**

**SUMX=SUMX+X**

**SUMX2=SUMX2+(X\*\*2)**

**10 CONTINUE**

**MEAN=SUMX/N**

**VAR=((SUMX2-(SUMX\*\*2/N)/N-1)**

**SD=SQRT(VAR)**

**SE=(SD/SQRT(N))**

**WRITE(\*,\*)’ENTER ANY VALUE FOR MU’**

**READ(\*,\*)’MU**

**T=(MEAN-MU)/SE**

**WRITE(\*,\*)’T-STATISTIC FOR GIVEN SAMPLE DATA IS=’,T**

**STOP**

**PRACTICAL#04**

**WRITE A FORTRAN WHICH READ TWO VALUES & SWAP THEM.**

**INTEGER VALUE1,VALUE2,TEMP**

**VALUE1=8**

**VALUE2=15**

**TEMP=VALUE1**

**VALUE1=VALUE2**

**VALUE2=TEMP**

**WRIRE(\*,\*)’VALUE1=’,VALUE1**

**WRITE(\*,\*)’VALUE2=’,VALUE2**

**STOP**

**END**

**PRACTICAL #05**

**WRITE A PROGRAM FOR CALCULATING Z-SCORE OF SAMPLE DATA.**

**INTEGER N,X,I,SUMX,SUMX2**

**REAL Z,MEAN,VAR,SD**

**SUMX=0**

**SUMX2=0**

**WRITE(\*,\*)’ENTER SAMPLE SIZE’**

**READ(\*,\*)N**

**WRITE(\*,\*)’ENTER SAMPLE OBS’**

**DO 10 I=1,N**

**WRITE(\*,\*)’ENTER OBS NO’,I**

**READ(\*,\*)X**

**SUMX=SUMX+X**

**SUMX2=SUMX2+(X\*\*2)**

**10 CONTINUE**

**MEAN=SUMX/N**

**VAR=((SUMX2/N)-(MEAN\*\*2))**

**SD=SQRT(VAR)**

**DO 20 I=1,N**

**Z=(X-MEAN)/SD**

**WRITE(\*,\*)’Z-SCORE IS=’,Z**

**20 CONTINUE**

**STOP**

**END**

**PRACTICAL #06**

**WRITE A PROGRAM TO FID THE VALUE OF “Y” ACCORDINGLY BY IF STATEMENT.**

**Y=2X+9.5 IF X<=4**

**Y=2X+3.5 IF X>4**

**INTEGER X**

**REAL Y**

**WRITE(\*,\*),’ENTER VALUE FOR X’**

**READ(\*,\*)X**

**IF(X,LE,4)**

**GOTO 20**

**10 Y=2\*\*X+9.5**

**20 Y=2\*\*X+3.5**

**WRITE(\*,\*)’VALUE OF Y=’,Y**

**STOP**

**END**

**PRACTICLE#07**

**//PROGRAM FOR CALCULATING GEOMETRIC MEAN & HARMONIC MEAN IN FORTRAN//**

**INTEGER N,X,PRODX**

**REAL GM,HM,POWER,SUMRX**

**PRODX=1,SUMX=0**

**WRITE(\*,\*)’ENTER SAMPLE SIZE’**

**READ(\*,\*)N**

**WRITE(\*,\*)’ENTER SAMPLE DATA ‘**

**DO 20 I=,N**

**WRITE(\*,\*)’ENTER OBSERVATION NO’,I**

**READ(\*,\*)X**

**PRODX=PRODX\*X**

**SUMRX=SUMRX+(1/X)**

**20 CONTINUE**

**POWER=(1/N)**

**GM=PRODX\*\*POWER**

**HM=N/SUMRX**

**WRITE(\*,\*)’GEOMETRIC MEAN=’,GM**

**WRTE(\*,\*)’HARMONIC MEAN=’,HM**

**STOP**

**END**