ASSIGNMENT 02
Muhammad Ali
M T W T F S 19PWCSE1801 DATE:

Repayment of 25,000 in 5 years
with interest 15%

PLAN 1 :-

At the end of each years
$5000 principal plus interest rate.

EOY 1 :-

= Principal amount + 1-Year interest
= $5000 + 3750
= $8750

EOY 2 :-

= $5000 + 3000
= $ 8000

EOY 3 :-

= $5000 + 2250
= $7250

EOY 4 :- $5000 + 1500
= $6500

EOY 5 :- $5000 + 750

= $5750

DATE:

M T W T F S

PLAN 2 :-

Pay interest due at end of each year and principle at end of 5 years

$IPN = 25000 \times 0.15 \times 5$

$= \$18750$

$F = 25000 + 18750$

$F = \$43750$

PLAN 3 :-

Pay in 5 equal EOY.

$$A = P\left\{\frac{(1+i)^N \cdot i}{(1+i)^N - 1}\right\}$$

$$A = 25000\left(\frac{(1+0.15)^5 \cdot 0.15}{(1+0.15)^5 - 1}\right)$$

$A = 7450$

M T W T F S DATE:

PLAN 4:-

Pay Payment and interest at the 5 Years in one Payment

$F = 3500(1 + 0.15)^5$

$F = 5028.3.9$