**Full Title of Your Paper Here**

**Your Name (First M. Last)**

**School or Institution Name (University at Place or Town, State**

**UNIT 5**

Q1

FV$=6000(1+2.5\%)^{4}$ =$6623 or 6622.88$$

Compound interest=$6000\left[(1+2.5\%)^{4}-1\right]$ = $623 or 622.83

Q2

FV$=2000(1+2.5\%)^{12}$ = $2689.78 or 2700

Compound interest=$2000\left[(1+2.5\%)^{12}-1\right]$ = $689.78 or 700

Q3

FV$=1200(1+16\%)^{3}$ = $1873.08 or 1873

Compound interest=$1200\left[(1+16\%)^{3}-1\right]$ =$673.07 or 673

Q4

Compound interest=$6200\left[(1+8.5\%)^{3}-1\right]$ =$1719.19

Compound amount= 6200+1719.19 =$7919.19

Q5

FV$=3000(1+0.5\%)^{4}$ =$3061 or 3060.45

Compound interest=$3000\left[(1+0.5\%)^{4}-1\right]$ = $61 or 60.45

Q6

Compound interest=$10800\left[(1+11\%)^{6}-1\right]$ =$9401 or 9400.48

Compound amount= 12000+9400.48 =$21401 or 21400.48

Q7

FV$=12000(1+1.5\%)^{6}$ = $13121 or 13121.32

Compound interest=$12000\left[(1+1.5\%)^{6}-1\right]$ = $1121 or 1121.32

 Q8

FV$=9000(1+2\%)^{12}$ = $11414 or 11414.17

Compound interest= = $9000\left[(1+2\%)^{12}-1\right]$= $2414 or 2414.18

 Or

FV$=9000(1+8.25\%)^{3}$ = $11416 or 11416.32

Compound interest=$9000\left[(1+8.25\%)^{3}-1\right]$ = $2410 or 2410.32

8.25% annually is a better deal.

Q9

Effective interest rate $=\left[1+\frac{6\%}{12}\right]^{12}-1$

 = 6.17%

Q10

PV $=\frac{5000}{(1+4\%)^{4}}$ = $4274 or 4274.02

Q11

PV $=\frac{8000}{(1+1\%)^{16}}$ = $6823 or 6822.57

Q12

PV $=\frac{1700}{(1+7.5\%)^{1}}$ = $1581 or 1581.40

Q13

PV $=\frac{10000}{(1+1.5\%)^{16}}$ = $7880 or 7880.31

Q14

FV$=2000(1+2\%)^{35}$ = $4000 or 3999.78

Q15

Compound interest=$1500\left[(1+0.00342\%)^{365}-1\right]$ = $19 or 18.85

Q16

FV of Annuity$=2100\left[\frac{(1+1.5\%)^{16}-1}{1.5\%}\right]$ = $37658 or 37657.97

Total Interest $=(2100)\*(1.5\%)\*(16)$ = $504

Q17

FV of Annuity$=1000\left[\frac{(1+7\%)^{17}-1}{7\%}\right]$ = $30840 or 30840.21

Q18

FV of Annuity$=11000\left[\frac{(1+3\%)^{3}-1}{3\%}\right]$ = $34000

Total Interest $=(11000)\*(3\%)\*(3)$ = $990

Q18

FV of Annuity$=4200\left[\frac{(1+2\%)^{20}-1}{2\%}\right]$ = $102049 or 102048.95

Total Interest $=(4200)\*(2\%)\*(20)$ = $1680

Q19

FV of Annuity$=380\left[\frac{(1+6\%)^{18}-1}{6\%}\right]$ = $11744 or 11744.15

Total Interest $=(380)\*(6\%)\*(18)$ = $410 or 410.4

Q20

FV$=2500(1+4.4\%)^{30}$ = $9089 or 9089.19

Q21

1) FV of Annuity$=583\left[\frac{(1+0.5)^{60}-1}{0.5\%}\right]$ = $40676 or 40675.93

2) FV of Annuity$=3500\left[\frac{(1+3\%)^{10}-1}{3\%}\right]$ = $40124 or 40123.58

3) FV of Annuity$=1750\left[\frac{(1+1.5\%)^{20}-1}{1.5\%}\right]$ = $40466 or 40466.42

4) FV of Annuity$=7000\left[\frac{(1+6\%)^{5}-1}{6\%}\right]$ = $39460 or 39459.65

D) Annuity 1 yields the highest amount of value

Q22

P = $\frac{30000}{\frac{(1+4\%)^{17}-1}{4\%}}$$$= $1266 or 126.96

Q23

FV of Annuity$=2500\left[\frac{(1+9\%)^{10}-1}{9\%}\right]$ = $37982 or 37982.32

Q24

P = $\frac{1000000}{\frac{(1+1\%)^{30}-1}{1\%}}$$$= $28748 or 28748.11

Q25

Unpaid balance $=(1000.75+44.99+298.71+17.23) = \$1361.68-1100=\$261.68$

Finance charge $=(261.68\*19.2\%)=\$50 or 50.24$

Q26

Unpaid balance $=(585+90+110)-(175) = \$665$

Q26

Total balance $= (254.69+1548.69+1855.36) = \$5953 or 5952.74$

Average daily balance $=\frac{5952.74}{29}$= $205 or 205.27

Amount of interest $= 5952.7\*13\% = \$774 or 773.85$

Q27

Total balance $= (281.73+50.00+15.62+50.07+111.92) = \$509 or 509.34$

Finance charge $= 509.34\*1.24\% = \$6 or 6.32$