

**(052) Math 131: Finite Mathematics.Quiz III(5.1-2,8.1-2,10.3): April 15, 2006**

**Dr. Latif and Raja Latif and Muhammad Latif and Abdul Latif**

**Contents**

**Marks: 20; Time: 30 Minutes**

**NAME:.....**

**I.D.#:**

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**SERIAL# SECTION #: (check one)**

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**NOTE: SHOW ALL STEPS OF THE SOLUTION.**

**NO FULL CREDIT FOR ANSWERS WITHOUT COMPLETE SOLUTION.**

The questions are not in any order of difficulty at all.

Only the nonprogramable calculators are allowed.

Check  $\surd$  or circle  $\circ$  very carefully the one correct choice of each question after completing the solution.

**Q.1.(Marks : 5) 294TAN37 Investment Planning. Find how much money should be deposited in a bank paying interest at the rate of 8.5 % per year compounded quarterly so that at the end of five years the accumulated amount will be \$ 33000.**

- (A) Between \$ 20000 and \$ 21000.
- (B) Between \$ 21000 and \$ 22000.
- (C) Between \$ 22000 and \$ 23000.
- (D) Between \$ 23000 and \$ 24000.
- (E) Between \$ 24000 and \$ 25000.

- (F) Between \$ 25000 and \$ 26000.
- (G) Between \$ 26000 and \$ 27000.
- (H) Between \$ 27000 and \$ 28000.
- (I) Between \$ 28000 and \$ 29000.
- (J) Between \$ 29000 and \$ 30000.
- (K) Between \$ 31000 and \$ 32000.
- (L) Between \$ 32000 and \$ 33000.
- (M) Between \$ 33000 and \$ 34000.
- (N) None of the Previous Choices is Correct

**and the correct amount is :..... Dollars.**

**Q.2. (Marks : 5) 367TAN6.** Find the number of permutations that can be formed from all the letters in the word

*U N I V E R S I T Y*

- (A) 4422110
- (B) 4989600
- (C) 9979200
- (D) 453600
- (E) 16800
- (F) 119750400
- (G) 1814400

(H) 479001600

(I) 420

(J) 39916800

(K) 3628800

(L) 831600

(M) 362880

(N) **None of the Previous Choices is Correct and the correct Number is :..... .**

**Q.3.** (Marks : 5) *384BZ.Counting Techniques.*

Serial numbers for a product are to be made using 3 letters followed by 3 numbers. If the letters are to be taken from the first 16 letters of the alphabet with no repeats and the numbers are to be taken from the 10 digits (0 – 9) with no repeats, how many serial numbers are possible?

[For Example : UPM492, IAS231, DMC560]

(A) 1572480

(B) 2419200

(C) 2937600

(D) 3525120

(E) 4186080

(F) 4924800

(G) 5745600

(H) 6652800

(I) 76507200

(J) 8743680

(K) 993900

(L) 1123000

(M) 1125000

(N) **None of the Previous Choices is Correct and the correct Number is :..... .**

**Q.4.** (Marks : 5) *519T10.3B10. Investment.* If \$ 18520 is invested at an annual rate of 3 % compounded continuously, find the compound amount at the end of eight years.

(A) *Between \$ 15000 and \$ 16000*

(B) *Between \$ 16000 and \$ 17000*

(C) *Between \$ 17000 and \$ 18000*

(D) *Between \$ 18000 and \$ 19000*

(E) *Between \$ 19000 and \$ 20000*

(F) *Between \$ 20000 and \$ 21000*

(G) *Between \$ 21000 and \$ 22000*

(H) *Between \$ 22000 and \$ 23000*

(I) *Between \$ 23000 and \$ 24000*

(J) *Between \$ 24000 and \$ 25000*

(K) *Between \$ 25000 and \$ 26000*

(L) *Between \$ 26000 and \$ 27000*

(M) *Between \$ 27000 and \$ 28000*

(N) **None of the Previous Choices is Correct and the correct amount is :.....Dollars.**