

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
Department of Mathematical Sciences

Instructor: Dr. Raja Mohammad Latif Office: 5-327, NAME _____

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I.D.# _____ Section# 6 (11AM) , 7 (1PM) , 8(2PM) Check✓

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Class: Math 131: Finite Mathematics Semester: Fall 2005 Date: December 21, 2005

Time: 20 Minutes. Marks : 25. Marks Obtained: _____

Instructions. Show complete solution for full credit.✓

Q.1.(TB223).(Marks : 7). A trust fund for a child's education is being set up by a single payment so that at the end of 15 years there will be \$ 50000.

If the fund earns interest at the rate of 7 % compounded semiannually, how much money should be paid into the fund now at present?

Q.2.(360TB9.4.1). (Marks:4). An urn contains ten marbles numbered 1 through 10 [1,2,3,4,5,6,7,8,9,10].

If a marble is randomly selected from the urn, determine the probability that

(a) it shows a number greater than or equal to 4.

(b) it shows an even number.

Q.3. (518Rolf16)(Marks : 10). The following table summarises the graduating class of Old Main university.

	B.A.Degree	B.S.Degree	B.B.A.Degree	Total or Sum
Male	180	60	240	480
Female	159	23	194	376
Total	339	83	434	856

A student is selected at random from the graduation class.

- (a) Find the probability that the student is male.

- (b) Find the probability that the student is receiving B.A. degree.

- (c) Find the probability that the student is a female receiving a B.B.A. degree.

- (d) Find the probability that the student is a female, given that the student is receiving a B.S. degree.

- (e) Find the probability that the student is receiving a B.A. degree , given that the student is a female.

Q.4. (Rolf182TB180). (Marks : 4). A student registers during the last day of registration. The probability that Math 131 is closed is 0.4 and the probability that Math 132 is closed is 0.9. These are independent.

- (a) What is the probability that both courses are closed?

- (b) What is the probability that neither Math 131 nor Math 132 is closed? (Both courses are not closed).