

Course No:TECH 1302
Course Title: Mathematics2
Date: 10/3/2018
No. of Questions: (3)
Time: 1hours
Using Calculator (No)

University of Palestine



1st Exam For 2nd Sem.
2017/2018
Total Grade: 15

Instructor Name: _____
Student No.: _____
Student Name: _____
College Name: _____
Dep. / Specialist: _____
Using Dictionary (No)

	Q1	Q2	Q3
Mark			

Question 1: (10 marks) True or False:

- a) The possible cases for the solution set of a linear system; a unique solution case or an infinitely many solutions case. ()
- b) If B is an inverse of a matrix A, then A is singular. ()
- c) The inverse of any elementary matrix is elementary matrix. ()
- d) If A is $n \times n$ matrix and $Ax=0$ has only the trivial solution, then the reduced row-echelon form of A is I_n . ()
- e) The homogeneous system of linear equations may has no solution case. ()

Question 2: (10 marks) Find the general solution of the system:

$$\begin{aligned}2x_1 + x_2 + x_3 - x_4 &= 3 \\x_1 + 2x_2 - x_3 + 3x_4 &= 2 \\-x_1 + x_2 - 2x_3 + 4x_4 &= -1\end{aligned}$$

Question 3: (10 marks) Find the inverse of

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 2 & 5 & 3 \\ 1 & 0 & 8 \end{bmatrix}$$

Good Luck