**Name……………**

**Roll No…………….**

**SAINTGITS COLLEGE OF APPLIED SCIENCES, PATHAMUTTOM P.O, KOTTAYAM**

**FIRST INTERNAL EXAM [SEPTEMBER-2016]**

**B.A CORPORATE ECONOMICS**

**FIRST SEMESTER**

**MATHEMATICS FOR ECONOMICS I**

Time: 2 hours Maximum: 50 Marks

**Section A**

*Answer* ***all*** *questions. Each question carries* ***1 mark****.*

1. Define nonsingular matrix.

2. Find X such that P+Q-X=0.Where P= Q=

3. Find the trace of the matrix

4. Fnd (x y) if (x y)-(0 -1)=(5 4)

5.Define identity matrix.

**(5×1=5)**

**Section B**

*Answer any* ***five*** *questions . Each question carries* ***2 marks****.*

6. Define transpose of a matrix with example.

7. If A= and B=, find 5A-2B

8. Show that I3 is an idempotent matrix.

9. If A= , find determinant of A

10. If A= , find determinant of A

11. Define symmetric matrix with example.

**(5×2=10)**

**Section C**

*Answer any* ***five*** *question. Each question carries* ***4 marks****.*

12. If A= , B= find and BA

13. Solve 2x+4y=7, 5x+3y=1

14. If A= , show that Adj A=3At

15. If A= , B= find AB.

16. Show that A= is idempotent.

17. Find the adjoint of A=.

**(5×4=20)**

**Section D**

*Answer any* ***one*** *question. Each question carries* ***15 marks****.*

18. Solve 3x+y+z=1, 2x+2z=0, 5x+y+2z=2 using Crammer’srule.

19. Solve x+2y+3z=2, 2x+4y+5z=3, 3x+5y+6z=4 using matrix method

**(1×15=15)**