

## PPSC Economics Topic 13 Mathematics in Economics

Sr	Questions	Answers Choice
1	Collection of well defined distinct objects thought of as a whole is called	A. Union B. Derivative C. Set D. Integral
2	If matrix A is matrix of order $n \times m$ and B is another matrix of order $m \times n$ , then BA will be the matrix of order.	A. $n \times m$ B. $m \times n$ C. $n \times n$ D. $m \times m$
3	A square matrix with 1's in its principal diagonal and zeros every where else is.	A. Diagonal matrix B. Identity matrix C. Leading diagonal D. Scalar matrix
4	The sufficient condition required for the matrix to posses inverse is that the matrix should be.	A. square matrix B. Singular matrix C. Non singular matrix D. Orthogonal matrix
5	if in a matrix , the number if rows is the same as the number of columns, it is called.	A. Singular matrix B. Non singular matrix C. Square matrix D. Column vector
6	If any equation involving two variables, such as $y = -2x + 1$ , the variable that appears on the right hand side of the equation is by convention called.	A. Dependent variable B. Independent variable C. Endogenous variable D. Explained variable
7	If the determinant formed by the elements of the matrix A is equal to zero, then the matrix is.	A. Skew symmetric B. Singular C. Symmetric D. Non singular
8	The slope of a horizontal line is.	A. One B. Zero C. Three D. two
9	"No two elements of a set are identical" this statements is.	A. Always true B. Sometimes true C. Not true D. All of the above is possible
10	A square matrix a such that $A^2 = a$ is called.	A. Orthogonal matrix B. Skew symmetric matrix C. Idempotent matrix D. Singular matrix
11	If all the elements of a matrix of any order are zero, it is called.	A. Identity matrix B. Null matrix C. Zero matrix D. Both b and c
12	The set of all elements belonging to A but not to B is.	A. $B - A$ B. $A - B$ C. $A'$ D. $B'$
13	If B is a subset of A ,then A is a	A. Super set of B B. Sub set of B C. Empty set of B D. Universal set of B
14	$ax^2 + bx + c = 0$	A. Linear equation B. Quadratic equation C. Polynomial of degree five D. None of these
15	The set of 'stars in the sky' is an example of	A. Countable set B. Infinite set C. Finite set D. unit set

16	A determinant composed of all the second order partial derivatives, with the second order direct partials on the principal diagonal and the second order cross partials off the principal diagonal and which is used to second order condition of optimization is called.	A. Jacobian determinant B. Hessian determinant C. Discriminant D. None of these
17	The transpose of the cofactor matrix is called.	A. Adjoin of the matrix B. Power of a matrix C. Minor of the matrix D. Rank of a matrix
18	The objects constituting a set are called	A. Estimates B. Elements C. Set object D. None of these
19	The simplest form of rectangular hyperbola is	A. $y = 1/x$ B. $y = x^2$ C. $y = x-2$ D. $y = x^3$
20	Union of A with A, that is $A \cup A$ .	A. Complement of A B. A itself C. Cannot be determined D. None of these