PPSC Economics Chapter 13 Mathematics in Economics

Sr	Questions	Answers Choice
1	If A is a square matrix of order ' n' and lis the unit matrix of the same order then A 1 is equal to.	A. A B. 1A C. 1 D. Both a and b
2	(A+B) = (B+A) this law of matrices is known as.	A. Cumulative law B. Associative law C. Distributive law D. Identity law
3	In a matrix , if there is only one row but any number of columns, it is called.	A. Row matrix B. Column matrix C. Raw vector D. Both a and c
4	Collection of well defined distinct objects thought of as a whole is called	A. Union B. Derivative C. Set D. Integral
5	If each element of a raw or column is a sum of two elements, the determinant can be expressed as the	A. Sun of two determinants B. Difference of two determinants C. Multiplication of two determinants D. Division of two determinants
6	A square matrix A, such that A = A ' is called a	A. Symmetric matrix B. Skew symmetric matrix C. Singular matrix D. Rank of a matrix
7	a possible use in encomia's for the circle or the ellipse is to model.	A. Production possibility curve B. Demand cuve C. Isocost liine D. Supply curve
8	If every elements of a raw or column of a square matrix A is zero, then the value of the determinant .	A. Equal B. Zero C. One D. Negative related
9	The objects constituting a set are called	A. Estimates B. Elements C. Set object D. Noe of these
10	The determinant of a matrix and that of its transpose are	A. Equal B. Zero C. One D. Negatively related
11	A determinant compose 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
12	If A and B are symmetric matrix, then AB- BA is.	A. Symmetric B. Skew symmetric matrix C. Idempotent matrix D. Orthogonal matrix
13	A mathematical statement setting two algebraic expressions equal to each other is called.	A. Equations B. Hypothesis C. Inequality D. All of above
14	Union of A with A, that is A U A.	A. Complement of A B. A itself C. Con not be determined D. None of these
15	A determinant composed of all the first order partial derivatives of a system of equations, arranged in ordered sequence is called.	A. Hassian determinatn B. Jacobian determiant C. Discrimianant D. First order determinant

16	Who is regarded as the founder of theory of sets.	A. Adam Smith B. Karl Frederich Gauss C. George cantor D. Euller
17	A inverse is defined only if A is a	A. Square matrix B. Column vector C. Orthogonal matrix D. Skew symmetric matrix
18	If two sets contain the same distinct elements, then they are called.	A. Equal sets B. Unequal sets C. Equivalent sets D. All of the above
19	The set which contains all the element of the two given sets A and B, avoiding duplication, is called.	A. Intersection of A and B B. Union of A and B C. Set A and B D. None of these
20	A function where a variable x can only very in jumps, is often called.	A. Non linear functions B. Inverse function C. Step function D. All of above
21	Union of A and the universal set is	A. A B. A' C. Universal set D. None of these
22	Th 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
23	A square matrix a such that A2 = a is called.	A. Orthogonal matrix B. Skew symmetric matrix C. Idempotent matrix D. Singular matrix
24	The equilibrium price and quantity , given the inverse demand and supply functions. po = 3q +30 and p s = 2q -5	A. p = 9 and q = 7 B. p = 10 and q = 7 C. p = 9 and q = 8 D. p = 7 and q = 9
25	The point at which the graph cuts the x axis is called.	A. x- intercept B. y - intercept C. slope D. None of these
26	Unknown values in an equation are called.	A. Constants B. Numeraire C. Variables D. All of the above
27	If B is a subset of A, then AUB =	A. B B. Intersection of A and B C. A D. None of these
28	"Null set is proper subset of all the non nul sets" this statement is.	A. Always true B. sometimes true C. Never true D. True subject to some conditions
29	If matrix A is matrix of order n x m and B is another matrix of order m x n, then BA will be the matrix of order.	A. n x m B. m x n C. n x n D. m x m
30	The elements in the Horizontal line in a matrix is called.	A. Columns B. Rows C. Elements D. Diagonal
31	Given or known values in an equation are called.	A. Constants B. Parameters C. Coefficients D. All of the above
32	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
33	A positive definite Hessian fulfills the second order conditions for	A. Maximum B. Minimum C. Both maximum and minimum

		D. Mini max
34	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
35	A diagonal matrix whose diagonal elements are equal is called.	A. Unit matrix B. Singular matrix C. Scalar matrix D. Non singular matrix
36	If a consumer's budget constraint is given as P, X,+ Py Y = B thent he absolute slope of the budget line is.	A. B B. x/y C. P/Py D. None of these
37	Given the demand and supply cautions qo = -8p + 2000 and qs = 12 p - 200 respectively the equilibrium price.	A. p = 100 B. p = 110 C. p = 120 D. p = 140
38	For any square matrix a of order 'n'a (Ad)A) is equal to.	A. (Ad) A) A B. Determinant A C. Rank of A D. Both a and b
39	In Vann diagram the universal set is represented by	A. Points within a rectangle B. Points within a circle C. Both a and b D. None of these
40	The matrix A multiplies by its inverse will b e a.	A. Identity matrix B. Skew symmetric matrix C. Idempotent matrix D. Adjoin of a matrix
41	A set continuing no elements is called.	A. Null set B. mpty set C. void set D. all of the above
42	If every element of a raw of column of a square matrix A is zero, then the value of the determinant. is.	A. Equal B. One C. zero D. Not equal
43	A matrix with all elements zero other than all the diagonals is called.	A. Diagonal matrix B. Orthogonal matrix C. Unit matrix D. Column vector
44	If A and B are symmetric matrices, then A +B is	A. Symmetric B. Non symmetric C. Skew symmetric D. Non skew symmetric
45	For any square matrix A of order 'n' a +A is.	A. Skew symmetric B. Non skew symmetric C. Symmetric D. Non symmetric
46	A possible use in economies for the circle of the ellipse is to model.	A. Production possibility curve B. Demand curve C. Iosco line D. Supply curve
47	A set containing only one element is termed as	A. Unit set B. Singleton set C. Both a and b D. None of these
48	A set totality of elements from all possible sets is called.	A. Union set B. Intersection set C. Universal set D. Unit set
49	The simplest form of rectangular hyperbola is	A. y = 1/x B. y = x2 C. y = x-2 D. y = x3
50	A negative definite Hessian fulfills the second order conditions for.	A. Maximum B. Minimum C. both maximum and minimum D. Mini max
		A. Jacobian determinant

51	The determinant of quadratic form is called.	B. Hessian determinant C. Discriminant D. None of these
52	A set containing all the elements of the universal set except those of set A is called.	A. Complement of set A B. Complement of universal set C. Union of A and universals set D. Universal set itself
53	(A+B) + C =a +(B+C) This law of matrices is known as.	A. Cumulative law B. Associative law C. Distributive law D. Identity law
54	if two sets do not have any common element, then they are called.	A. Complement sets B. Joint sets C. Disjoint sets D. None of these
55	The increase in dependent variable that results when the independent variable increases by one unit in a simple lines. function is called.	A. Y intercept of the curve B. Slope of the curve C. X intercept of the curve D. Marginal value
56	If a Set C contain all the elements which are present in both the set A and B then set C is called.	A. Union of A and B B. Intersection of A and B C. Complement of A D. Complement of B
57	If the determinant formed by the elements of the matrix is not equal to zero, then the matrix is called.	A. Skew symmetric B. Symmetric C. Singular D. Non -singular
58	AB = BA = 1 , then B is said to	A. Ad joint of matrix of A B. Inverse matrix of A C. Determinant of A D. Cofactor of a
59	The signed minor of the matrass A is called.	A. Adjoin B. Co factor C. Minor D. Rank
60	If matrix A is of m x n dimension, then A will be	A. n x m dimension B. m x n dimension C. n x p dimension D. m x m dimension
61	If each element of a raw of column of a square matrix A is zero, then the value of the determinant. is.	A. Equal B. One C. Zero D. None of these
62	A linear function of the form 6x2 - 2y + 8 = 0 is known as.	A. Explicit function B. implicit function C. Quadratic function D. All of the above
63	If the columns of a given matrix A and B are changed into rows and vice versa, the matrix thus obtained is called the.	A. Symmetric matrix B. Transpose of a matrix C. Singular matrix D. Rank of matrix
64	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
65	The set of 'stars in the sky' is an example of	A. Countable set B. Infinite set C. Finite set D. unit set
66	The variable that stands alone on the left hand side of the equation such as y = 2x + 1 is known as.	A. Dependent variable B. Independent variable C. Endogenous variable D. Explained variable
67	Ordered Pairs of two sets are called.	A. Elements B. Function C. Cartesian product D. None of the above
68	The value of the dependent variable where the graph cuts the y-axis is called.	A. X - intercept B. Y- intercept C. Slope D. None of these

69	If two sets contains the same number of distinct elements but not the same elements are called.	A. Pie diagram B. Venn diagrams C. Histogram D. Ogives
70	A polynomial equation with degree two a called.	A. Linear equation B. Quadratic equation C. Parabola equation D. All of the above
71	A square matrix a of order 'n' is called a diagonal matrix if its non diagonal elements are.	A. zero B. Non zero C. One D. None of the above
72	The function y = 2x + 1 and x = 1/2 y - 1/2 are said to be.	A. Non linear functions B. Inverse functions C. Step functions D. All the above
73	if we are told that the two statements y = 3x2 and y = x + 10' are bout true at the same time , they are called.	A. Implicit functions B. explicit functions C. Simultaneous equations D. Quadratic equations
74	If every element of a set B is also an elements of A then	A. A is a subset of B B. B is a subset of A C. A is not a subset of B D. B is not a subset of A
75	A variable which is free to take any value we choose to assign to it is called.	A. Dependent variable B. Independent variable C. Endogenous variable D. Explained variable
76	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
77	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
78	The set of all elements belonging to A but not to B is.	A. B - A B. A - B C. A' D. B'
79	Matrix multiplication does not satisfy	A. Associative law B. Distributive law C. Commutative law D. None of the above
80	"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
81	The associative law of union is	A. AU (BUC= (AUB) B. U C C. AUB = BUA D. BUC = BUA
82	Given the demand function qo = -8p +2000 and tis inverse p = -1/8 qo + 250 ,p in the inverse function which is interpreted as the maximum price that buyers are willing to pay for the.	A. Supply price B. Demand price C. Equilibrium price D. Reserved price
83	Relation between two numbers or variables are called.	A. Function B. Binary relation C. Inverse relation D. None of the above
84	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
85	a x2 + bx + c = 0	A. Linear equation B. Quadratic equation C. Polynomial of degree five D. None of these
86	Which method is used for finding inverse of a matrix.	A. Gauss elimination method B. Henrich standard method C. Co factor method D. Both a and c

87	if A = A , then A is	A. Symmetric matrix B. Skew symmetric matrix C. Identity matrix D. Orthogonal matrix
88	An equation in which all variables are raised to the first power is known as.	A. Linear equation B. Non linear equation C. Quadratic equation D. Polynomial of degree two
89	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
90	Union of A and a null set is equal is.	A. Intersection of A and null set B. Null set C. Both a and b D. A
91	Union of A with B is same as union of B with A, that is AUB = BUA is termed as	A. Associative law of union B. Cumulative law of union C. Reflective law D. All the above
92	The set of subsets of a set A is called.	A. Power set of A B. Complement of A C. Both a and b D. None of these
93	The slope of a horizontal line is.	A. One B. Zero C. Three D. two
94	any number raise to the power zero is always equal to.	A. zero B. one C. two D. The number itself