

## PPSC Economics Topic 13 Mathematics in Economics

| Sr | Questions  | Answers Choice   |
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| 1  | The variable that stands alone on the left hand side of the equation such as $y = 2x + 1$ is known as.                                     | A. <b>Dependent variable</b><br>B. Independent variable<br>C. Endogenous variable<br>D. Explained variable   |
| 2  | A set totality of elements from all possible sets is called.   | A. Union set<br>B. Intersection set<br>C. <b>Universal set</b><br>D. Unit set  |
| 3  | If B is a subset of A, then $A \cup B =$   | A. B<br>B. Intersection of A and B<br>C. <b>A</b><br>D. None of these  |
| 4  | If each element of a row or column is a sum of two elements, the determinant can be expressed as the                                       | A. Sum of two determinants<br>B. <b>Difference of two determinants</b><br>C. Multiplication of two determinants<br>D. Division of two determinants |
| 5  | A positive definite Hessian fulfills the second order conditions for   | A. Maximum<br>B. <b>Minimum</b><br>C. Both maximum and minimum<br>D. Mini max  |
| 6  | Unknown values in an equation are called.  | A. Constants<br>B. Numeraire<br>C. <b>Variables</b><br>D. All of the above   |
| 7  | A function where a variable x can only vary in jumps, is often called.   | A. Non linear functions<br>B. Inverse function<br>C. <b>Step function</b><br>D. All of above   |
| 8  | For any square matrix a of order 'n'a (Ad)A) is equal to.  | A. (Ad) A) A<br>B. Determinant A<br>C. Rank of A<br>D. <b>Both a and b</b>   |
| 9  | The set of all elements belonging to A but not to B is.  | A. B - A<br>B. <b>A - B</b><br>C. A'<br>D. B'  |
| 10 | $(A+B) + C = A + (B+C)$ This law of matrices is known as.  | A. Cumulative law<br>B. <b>Associative law</b><br>C. Distributive law<br>D. Identity law   |
| 11 | 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<br>B. <b>Intersection of A and B</b><br>C. Complement of A<br>D. Complement of B   |
| 12 | The sufficient condition required for the matrix to possess inverse is that the matrix should be.  | A. square matrix<br>B. Singular matrix<br>C. <b>Non singular matrix</b><br>D. Orthogonal matrix  |
| 13 | Union of A with B is same as union of B with A, that is $A \cup B = B \cup A$ is termed as   | A. Associative law of union<br>B. Cumulative law of union<br>C. Reflective law<br>D. <b>All the above</b>  |
| 14 | The determinant of a matrix and that of its transpose are  | A. <b>Equal</b><br>B. Zero<br>C. One<br>D. Negatively related  |
| 15 | 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<br>B. <b>Slope of the curve</b><br>C. X intercept of the curve<br>D. Marginal value                                    |

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| 16 | A set containing all the elements of the universal set except those of set A is called.                                | A. Complement of set A<br>B. Complement of universal set<br>C. Union of A and universal set<br>D. Universal set itself |
| 17 | If the determinant formed by the elements of the matrix is not equal to zero, then the matrix is called.               | A. Skew symmetric<br>B. Symmetric<br>C. Singular<br>D. Non-singular  |
| 18 | any number raised to the power zero is always equal to.  | A. zero<br>B. one<br>C. two<br>D. The number itself  |
| 19 | 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<br>B. Transpose of a matrix<br>C. Singular matrix<br>D. Rank of matrix                             |
| 20 | If B is a subset of A, then A is a   | A. Super set of B<br>B. Sub set of B<br>C. Empty set of B<br>D. Universal set of B                                     |