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KCET ONLINE TEST-20, MAY-2020  **MATHEMATICS**  **TIME: 45Mins MARKS: 30**

**TOPIC**: **MATRICES, DETERMINANTES.**

1. **If  and , then**

(a)  (b) 

(c) (d) 

1. **For non zero,  if , then the value of **

(a) *abc* (b) 

(c)  (d) None of these

1. **If  , then *k* =**

(a) 1 (b) 2

(c) – 1 (d) – 2

1. **If  and  = 0, then **

(a) 3 (b) 2

(c) 1 (d) 0

1. **The value of  is**

(a)  (b) 

(c)  (d) None of these

1. **The value of *x* obtained from the equation  will be**

(a) 0 and  (b) 0 and 

(c) 1 and  (d) 0 and 

1. **If 5 is one root of the equation , then other two roots of the equation are**

(a) – 2 and 7 (b) – 2 and –7

(c) 2 and 7 (d) 2 and –7

1. **If  and *d* are complex numbers, then the determinant is**

(a) Dependent on *a*, *b*, *c* and *d* (b) Independent of and *d*

(c) Dependent on and independent of  (d) None of these

1. **If  and 1,  are the cube roots of unity, then  has the value**

(a) 0 (b) 

(c)  (d) 1

1. **If , then**

(a) *a* is one of the cube roots of unity (b) *b*  is one of the cube roots of unity

(c) is one of the cube roots of unity (d) is one of the cube roots of –1

1. **For positive numbers and *z* the numerical value of the determinant is**

(a) 0 (b) 1

(c)  (d) None of these

1. ** are the and term of a G.P., all positive, then  equals**

(a) –1 (b) 2

(c) 1 (d) 0

1. **If be positive and not all equal, then the value of the determinant is**

(a) –*ve* (b) + *ve*

(c) Depends on  (d) None of these

1. **If  (where *x*, *y*, *z* are not all zero) have a solution other than , ,  then *a*, *b* and *c* are connected by the relation**

(a)  (b) 

(c)  (d) 

1. **If |*A*| denotes the value of the determinant of the square matrix *A* of order 3, then |– 2*A*|=**

(a)  (b) 

(c)  (d) None of these

1. **If the system of equations , and , where has a non trivial solution, then the value of is**

(a) – 1 (b) 0

(c) 1 (d) None of these

1. **If *A* is a matrix of order 3 and |*A*| = 8, then **

(a) 1 (b) 2

(c)  (d) 

1. **If , then **

(a)  (b) 

(c)  (d) 

1. **If and *I* is a unit matrix of order, then  equals**

(a) 2*A* (b) 4*A*

(c) 6*A* (d) None of these

1. **If  and , then **

(a)  (b) 

(c)  (d) None of these

1. **If and *I* is the identity matrix of order 2, then **

(a) *I* (b) *O*

(c)  (d) 

1. **If , then**

(a)  (b) 

(c)  (d) 

1. **If  and , where *I* and *O* are unit and null matrices of order 3 respectively, then**

(a)  (b) 

(c)  (d) 

1. **If , then **

(a)  (b) 

(c)  (d) None of these

1. **The inverse of  is**

(a)  (b) 

(c)  (d) None of these

1. **If matrix  and its inverse is denoted by , then the value of =**

(a)  (b) 

(c)  (d)

1. Let , where  Then  is equal to

(a)  (b)  (c)  (d) None of these

1. **If *A* and *B* are two square matrices such that *BA*, then **

(a) 0 (b) 

(c)  (d) 

1. **The matrix is**

(a) Orthogonal (b) Involutory

(c) Idempotent (d) Nilpotent

1. **In a upper triangular matrix , minimum number of zeros is**

(a)  (b) 

(c)  (d) None of these