**United College of Engineering and Research, Allahabad**

**Department of Computer Science & Engineering**

**B.Tech CSE- IV Semester**

**Quiz-5**

**Course Name:** Discrete Structure and Theory of Logic  **AKTU Course Code:**KCS-303

**Time: 20 Minutes Max. Marks: 10**

* **All Questions are compulsory.**
* **All Questions carry one mark.**

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| **Q. No.** | **Questions** | **CO** |
| **1** | In the given graph identify the cut vertices. [data-structure-questions-answers-graph-q2](https://www.sanfoundry.com/wp-content/uploads/2017/08/data-structure-questions-answers-graph-q2.png) a) B and E b) C and D c) A and E d) C and B | **CO5** |
| **2** | What is the number of edges present in a complete graph having n vertices? a) (n\*(n+1))/2 b) (n\*(n-1))/2 c) n d) Information given is insufficient | **CO5** |
| **3** | The given Graph is regular. [data-structure-questions-answers-graph-q5](https://www.sanfoundry.com/wp-content/uploads/2017/08/data-structure-questions-answers-graph-q5.png) a) True b) False | **CO5** |
| **4** | A connected planar graph having 6 vertices, 7 edges contains \_\_\_\_\_\_\_\_\_\_\_\_\_ regions. a) 15 b) 3 c) 1 d) 11 | **CO5** |
| **5** | If a simple graph G, contains n vertices and m edges, the number of edges in the Graph G'(Complement of G) is \_\_\_\_\_\_\_\_\_\_\_ a) (n\*n-n-2\*m)/2 b) (n\*n+n+2\*m)/2 c) (n\*n-n-2\*m)/2 d) (n\*n-n+2\*m)/2 | **CO5** |
| **6** | What is the maximum number of edges in a bipartite graph having 10 vertices? a) 24 b) 21 c) 25 d) 16 | **CO5** |
| **7** | For a given graph G having v vertices and e edges which is connected and has no cycles, which of the following statements is true? a) v=e b) v = e+1 c) v + 1 = e d) v = e-1 | **CO5** |
| **8** | Which of the following ways can be used to represent a graph? a) Adjacency List and Adjacency Matrix b) Incidence Matrix c) Adjacency List, Adjacency Matrix as well as Incidence Matrix d) No way to represent | **CO5** |
| **9** | A cycle on n vertices is isomorphic to its complement. What is the value of n? a) 5 b) 32 c) 17 d) 8 | **CO5** |
| **10** | How many perfect matchings are there in a complete graph of 10 vertices? a) 60 b) 945 c) 756 d) 127 | **CO5** |

Answer

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| 1-D | 2-B | 3-A | 4-B | 5-A | 6-C | 7- B | 8-C | 9-A | 10-B |