Internal Assignment for UG Mathematics(UGP)-2022
Department of Mathematics(UG & PG)
Ramananda College
Semester IV
F.M. 10
Time 30 Minutes
Paper Code: SP/MTH/404/SEC-2
(Graph Theory)

Answers any two

1. Define walk , path, circuit, bipartite graph and spanning subgraph with examples .

2. Define connected graph. Prove that ,a disconnected graph G without self loops and parallel edges with u vertices and v components can have at most (u-v)(u-v+1)/2 edges.

3. Prove that the sum of degrees of all verticesin G is twice the number of edges in G.

4. A graph G has 8 edges. Find the number of vertices , if the degree of each vertex is 2.