DEPT. OF MATHEMATICS JHARGRAM RAJ COLLEGE B.Sc(H) Sem – IV , INTERNAL ASSESSMENT-1st , 2018-19 Sub: MATHEMATICS, Course – SEC 2

Full Marks: 5 Answer any two questions: Time: 30 m. $(2 \times 2.5 = 5)$

- 1. Define bipartite graph with an example.
- 2. Prove that in a graph the total number of odd degree vertices is even.
- 3. Determine the number of edges in a graph with two vertices of degree 4 and four vertices of degree 2.Also draw such a graph.

DEPT. OF MATHEMATICS JHARGRAM RAJ COLLEGE B.Sc(H) Sem – IV , INTERNAL ASSESSMENT-2nd , 2018-19 Sub: MATHEMATICS, Course – SEC 2

Full Marks: 5 Answer any two questions:

Time: 30 m. $(2 \times 2.5 = 5)$

- 1. Prove that in a tree, there are at least two pendant vertices.
- 2. Define centre of a graph with an example.
- 3. Show that the number of vertices in a binary tree is always odd.