DEPT. OF MATHEMATICS
JHARGRAM RAJ COLLEGE
B.Sc(H) Sem - IV , INTERNAL ASSESSMENT- ${ }^{\text {st }}$, 2018-19 Sub: MATHEMATICS, Course - SEC 2
Full Marks: 5
Time: $\mathbf{3 0} \mathbf{m}$.
Answer any two questions:

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-2 ${ }^{\text {nd }}$, 2018-19 Sub: MATHEMATICS, Course - SEC 2
Full Marks: 5
Time: $\mathbf{3 0} \mathbf{m}$.
Answer any two questions: $(2 \times 2.5=5)$

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.
