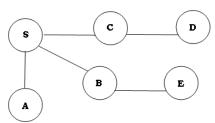
## The Yenepoya Institute of Arts, Science, Commerce and Management

A Constituent Unit of Yenepoya (Deemed to be University)

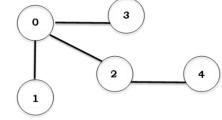
## III Sem BCA/BSc-Introduction to Artificial Intelligence

## **Assignment 01**

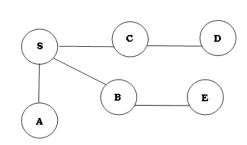
- 1. Define artificial intelligence. Explain its applications.
- 2. Explain NLP, computer vision and speech recognition. Provide examples of their applications.
- 3. What is Problem Solving in AI? Explain the steps involved in it.
- 4. Explain informed and uninformed search in AI. Give examples.
- 5. Explain Hill Climbing Algorithm along with its types.
- 6. Explain the difference between depth-first search and breadth-first search. Provide an example of each.
- 7. Explain AI techniques and write its advantages and disadvantages.
- 8. What is an AI agent? Explain Types of Agents based on their degree and capacity with relevant diagrams.
- 9. Write Python code, apply and explain the steps of Breadth First Search algorithm for the following graph,



10. Write Python code, apply and explain the steps of Breadth First Search algorithm for the following graph,



11. Write Python code, apply and explain the steps of Depth First Search algorithm for the following graph,



12. Write Python code, apply and explain the steps of Depth First Search algorithm for the following graph,