# SRINIX COLLEGE OF ENGINEERING, BALASORE

2<sup>nd</sup> INTERNAL EXAMINATION, MARCH 2021-22

SUBJECT –AI&ML FULL MARK-100

## SEMESTER- 5<sup>th</sup>

BRANCH-CSE TIME-2.30HOURS

#### **SECTION A (All questions are compulsory)**

 $2 \times 10 = 20$ 

- 1. What is an artificial intelligence Neural Networks?
- 2. Mention the difference between statistical AI and Classical AI?
- 3. Which search method takes less memory?
- 4. A\* algorithm is based on which search method?
- 5. What is a heuristic function?
- 6. In 'Artificial Intelligence' where you can use the Bayes rule?
- 7. What is reinforcement learning?
- 8. In top-down inductive learning methods how many literals are available? What are they?
- 9. Name two types of problems used in supervised learning.
- 10. In speech recognition what kind of signal is used?

## **SECTION B (Answer Any Eight)**

 $6 \times 8 = 48$ 

- 11. Explain well-defined problems & solution.
- 12. List various factors which affect the efficiency of a task environment. Write PEAS description for an automated TAXI driver.
- 13. Write PEAS description for Medical diagnosis system, Satellite image analysis system, Partpicking robot, Refinery controller, Interactive English tutor
- 14. Explain simple reflex agent.
- 15. Explain Depth First Search.
- 16. Explain informed search strategies
- 17. List various definitions of AI.
- 18. Differentiate between supervised and un-supervised learning.
- 19. Explain A\* Algorithm.

## **SECTION C (Answer Any Two)**

 $16 \times 2 = 32$ 

- 20. Define machine learning. Discuss various machine learning strategies in details.
- 21. Discuss different types of agent programs.
- 22. Explain various informed search strategies

\*\*\*\*\* ALL THE BEST \*\*\*\*\*