

Total No. of Questions – [3]

Total No. of Printed Pages: 1

G.R. No.	
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PAPER CODE	U321-242B(ES2)
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May 2022 (ENDSEM) EXAM
T.Y. B. TECH. (SEMESTER - II)
COURSE NAME: Robotics & Applications
COURSE CODE: ETUA32182B
(PATTERN 2018)

Time: [1Hr]

[Max. Marks: 30]

(*) Instructions to candidates:

- 1) Figures to the right indicate full marks.
- 2) Use of scientific calculator is allowed
- 3) Use suitable data where ever required

- Q.1 a) Enlist the Characteristics of square grid discretization over other shape discretization method. [4]
- b) Distinguish how Heuristic PPA are more suitable in robotic navigation? [6]
- OR**
- b) Describe cell pruning technique with suitable example. [6]
- Q2 a) Justify the statement "Actuators are far from perfect". [4]
- b) Explain three PID based motorized wheel control. [6]
- OR**
- b) Comparison between PID and Incremental PID [6]
- Q.3 a) Enlist the major Properties of Industrial Robot. [4]
- b) Elaborate Human Factor Issue? [6]
- OR**
- b) Describe the different Hazardous Areas in of human machine Interface /Interaction? [6]