

**M. TECH.-IV (INFORMATION TECHNOLOGY) (CBCS – 2015  
COURSE) : SUMMER - 2018**

**SUBJECT: SELF- STUDY PAPER – II: d) ARTIFICIAL INTELLIGENCE  
&APPLICATIONS**

Day: **Tuesday**  
Date: **19/06/2018**

**S-2018-3109**

Time: **11.00 AM TO 02.00 PM**  
Max. Marks: 60

**N.B.:**

- 1) All questions **are COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.
- 4) Draw neat labeled diagrams **WHEREVER** necessary.

**SECTION-I**

**Q.1** Explain applications of Artificial Intelligence. **(10)**

**OR**

**Q.1** Explain predicates and conditionals in LISP programming. **(10)**

**Q.2** Explain in detail A\* algorithm with suitable example. **(10)**

**OR**

**Q.2** Explain control strategies forward and backward chaining. **(10)**

**Q.3** State unification algorithm. Explain with example. **(10)**

**OR**

**Q.3** Explain knowledge representation using frames. **(10)**

**SECTION- II**

**Q.4** Explain augmented transition nets (ATN) with example. **(10)**

**OR**

**Q.4** Explain minimax search procedure with example. **(10)**

**Q.5** Explain knowledge acquisition in expert system. **(10)**

**OR**

**Q.5** Explain Bayes theorem. **(10)**

**Q.6** Explain Robotics with its components. **(10)**

**OR**

**Q.6** Discuss explanation based learning with example. **(10)**

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