POLYTECHNIC, B.E/B.TECH, M.E/M.TECH, MBA, MCA & SCHOOL

Notes Syllabus Question Papers Results and Many more...

Available @

www.binils.com

| 14 | Reg. No.: |
|-----------------------------|---|
| [| Question Paper Code: 90804 |
| B.E. / B.T | ech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2022. |
| | Sixth Semester |
| | Information Technology |
| | IT 8601 – COMPUTATIONAL INTELLIGENCE |
| | (Regulations 2017) |
| Time: Three l | |
| | Answer ALL questions. |
| | PART A — $(10 \times 2 = 20 \text{ marks})$ |
| 2. List dow 3. Different | n the characteristics of an Expert system. tate declarative and procedural knowledge. |
| | L with an example. |
| | wn any two applications of neural networks. Eate fuzzification and defuzzification. |
| | use of Hidden Markov Model. |
| | reinforcement learning. |
| 9. Define th | ne term "Morphology" in NLP domain. |
| 10. How is the analysis | hat useful for developing intelligent applications. How does semantic differ from syntactic analysis. |
| | PART B — $(5 \times 13 = 65 \text{ marks})$ |
| 11. (a) (i) | Discuss the various components of computational intelligence. (7) |
| (ii) | Define A* search algorithm. Compare A* and AO* algorithm with each other. (6) |
| | Or |
| | |
| | |
| | |

POLYTECHNIC, B.E/B.TECH, M.E/M.TECH, MBA, MCA & SCHOOL

Notes Syllabus Question Papers Results and Many more... Available @

www.binils.com

| | Define the term logic. What is the role of logic in developing Artificial Intelligence application? Compare Propositional logic with First order logic. Give appropriate examples. (13) | (b) | | |
|---|---|---------------|-----|---|
| | Elaborte on forward and backward chaining process. (13) | 2. (a) | 12. | |
| | Or | 19-59 | | |
| | Design an ontology for representing the Educational, family and hostel details of Students in an university – Sketch and explain. (13) | (b) | | |
| | Elaborate of the formation of fuzzy rules using an example of your own. (13) | 3. (a) | 13. | |
| | Or | | | |
| | How Fuzzy logic overcomes normal if – else statements? Give example and explain the process. (13) | (b) | | |
| | Describe about the Regression and Classification Process used for Linear datasets. (13) | 1. (a) | 14. | |
| | Or | | | |
| n | What is a Support Vector Machine? How is its useful for Machine, learning domain? What are advantages and disadvantages of SVM. (13) Elaborate about the process involved in NLP. (13) Or | (b) 5. (a) | 15. | W |
| | Describe the process involved in Information Retrieval system. (13) | (b) | | |
| | PART C — $(1 \times 15 = 15 \text{ marks})$ | | | |
| | (i) Point out the importance of syntax and semantics in NLP. Construct a grammar and draw the parse tree for the sentence. (8) | 6. (a) | 16. | |
| | (1) "The Crow is living in the Nest". | | | |
| | (2) "Sachin scored century" | | | |
| | (ii) How Bayesian approach is used in developing Intelligent Approaches. (7) | | | |
| | Or | | | |
| | Elaborate about EM algorithm with appropriate use case. (15) | (b) | | |
| | Kull For France | | | |
| | 2 90804 | | | |
| | | | | |
| | | | | |
| | | | | 1 |
| | | | | |