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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Sixth Semester, B.E. - Computer Science and Engineering

Semester End Examination; May / June - 2019

Semantic web Technologies

Time: 3 hrs

Max. Marks: 100

Note: Answer **FIVE** full questions, selecting **ONE** full question from each unit.

UNIT - I

- 1 a. Briefly explain intelligent web applications. 6
- b. Illustrate the limitations of today's web. Elaborate the feature of next generation web. 8
- c. Explain how intelligent ubiquitous devices improve productivity? 6
- 2 a. Give an overview of the following : 10
 - i) Machine intelligence
 - ii) Artificial intelligence
- b. What is semantic web? With a neat diagram, explain markup language pyramid. 10

UNIT - II

- 3 a. Explain RDF triple by considering RDF statement "The book has the title Balaguruswamy, Padmareddy and Pradeep: C programming" and also write RDF serialized form. 10
- b. Explain with example RDF schema. 10
- 4 a. What is ontology? Explain three different sublanguages that are defined by W3C. 10
- b. Explain basic elements of ontology web language. 10

UNIT - III

- 5 a. What is ontology engineering? List and explain ontology applications. 10
- b. Explain the iterative approach for constructing ontology. 10
- 6 a. Explain the working of inference engine. 10
- b. Describe RDF inference engine with suitable example. 10

UNIT - IV

- 7 a. Explain the functions that automate OWL-S web services. 8
- b. Briefly explain three types of process defined by OWL-S. 12
- 8 a. Write a short note on; i) Cerebra ii) SMORE. 10
- b. List and explain semantic web services software tools. 10

UNIT - V

- 9 a. Give an overview of the following semantic web applications : 10
 - i) E-learning
 - ii) Knowledge base
- b. Describe enterprise application integration with example. 10
- 10 a. Explain Google search algorithm in detail. 10
- b. Write a short note on: 10
 - i) TAP
 - ii) SWOOGLE