

MCA DEPARTMENT



QUESTION BANK

For

18MCA222 -Web Programming

Regulation – 2018

Academic Year 2018 – 19

Prepared by

Mr. M. E .Palanivel, Professor



SUBJECT NAME : Semantic web

SUBJECT CODE : 16MCA314C

YEAR & SEM : II & I

Academic Year : 2018-19

UNIT I - Web Intelligence		
Empowering the Information Age-Thinking and Intelligent Web Applications The Information Age -The World Wide Web - Limitations of Today's Web -The Next generation Web What is Decidable- Mathematical Logic- Kurt Godel- knowledge Representation-Computational Logic- AI - The Semantic Web-What is Machine Intelligence-What is Machine Intelligence -Alan Turing-Turing test-Machine Intelligence- Description Logic- Ontology - Inference Engines - Software Agents-Limitations and Capabilities.		
PART -A		
Q.No.	Questions	Blooms Taxonomy Level
1	Define Semantic Web	Remembering
2	List the person names who is shaping information Revolution	Remembering
3	List the open standards of the web laid by Tim Berners-Lee and his collaborators.	Analyzing
4	Identify the work of Kurt Godel .	Applying
5	What are the cognitive tasks included in the study of AI	Remembering
6	List the three techniques to express knowledge representation and inference.	Analyzing
7	List the languages used to built Semantic web	Analyzing
8	What is the role of Inference engine in Semantic web	Remembering
9	What is machine Intelligence	Remembering
10	List the limitations of current web.	Analyzing
PART -B		
11	Identify the need for HTML List	Analyzing
12	Examine the need for HTML Tables	Applying
13	Describe the purpose of HTML Frames	Remembering
14	Briefly Explain the HTML Forms	Analyzing
15	Illustrate different Types of CSS	Applying
16	Discuss XML structure in detail	Understanding
17	write about Document Type Definition	Remembering
18	Interpret Java Script Objects	Understanding
19	Illustrate String Functions with examples	Applying
20	Illustrate Array Functions with Example	Applying
UNIT II - Ontology in Computer Science and Knowledge Representation in Description Logic		
Defining the term Ontology-Differences among taxonomies- Thesauri and Ontologies- Classifying Ontologies- Web Ontology description languages-Ontologies- Categories and intelligence. Introduction- Example- Family of Attribute Languages- Inference problems		
PART -A		
21	Define Ontology using mathematical notation.	Applying
22	What basis Ontologies are Classified	Remembering
23	Thesauri are used for what purpose	Applying
24	List the items included in Frame model	Analyzing



**SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES.
(AUTONOMOUS)
MCA DEPARTMENT
QUESTION BANK**

SUBJECT NAME : Semantic web

SUBJECT CODE : 16MCA314C

YEAR & SEM : II & I

Academic Year : 2018-19

25	List the name of Ontologies while classifying according to their Generality.	Analyzing
26	Define domain Ontology.	Remembering
27	Define Description logic	Understanding
28	Distinguish Atomic concept and Atomic role	Analyzing
29	Distinguish Concept subsumption and Concept instantiation	Analyzing
30	Define Knowledge base	Understanding
PART -B		
31	Explain the differences among Taxonomies, Thesauri and Ontologies	Understanding
32	a) Classify the Ontologies according to a Semantic Spectrum (5M) b) Classify the Ontologies according to their Generality. (5M)	Analyzing
33	a) Classify the Ontologies according to the information represented.(5M) b) Discuss about Web Ontology Description Languages (5M) Discuss about knowledge representation in Description Logic (5M)	
34	Explain about notations used to develop Description logic with an example	Evaluating
35	Construct a Book Knowledge Base using Description logic constructors for the following Atomic Concepts: Book, Author, Country, EuroCountry Atomic roles: has Author, publishedIn Constants: "The Description Logic Handbook", "Principia Mathematica", "Franz Baader", "Diego Calvanese", "Bertrand Russell", "Alferd Whitehead", "United Kingdom"	Creating
36	Deduce the Concept subsumption and Concept instantiations For the Book Knowledge base for the following Atomic Concepts: Book, Author, Country, EuroCountry Atomic roles: has Author, publishedIn Constants: "The Description Logic Handbook", "Principia Mathematica", "Franz Baader", "Diego Calvanese", "Bertrand Russell", "Alferd Whitehead", "United Kingdom"	Evaluating
37	Explain about the Concept Descriptions in the Family of Attribute Languages	Understanding
38	Discuss about Assertions in the Family of Attribute Languages	Creating
39	Compare the Inference problems for Concept Descriptions and Assertions.	Analyzing
40	Discuss the Terminologies used in the Family of Attribute Languages	
UNIT III - RDF and RDF Schema		
Introduction- Xml essentials- RDF-RDF Schema- A Summary of RDF/RDF Schema Vocabulary		
PART – A		
41	What is the purpose of RDF in the Web.	Remembering
42	Define Resource	Remembering
43	Define URI	Remembering
44	Distinguish URI and URIfref	Analyzing
45	Compare a namespace and qualified names	Understanding
46	Write a mathematical model for RDF Statement.	Applying



SUBJECT NAME : Semantic web

SUBJECT CODE : 16MCA314C

YEAR & SEM : II & I

Academic Year : 2018-19

47	Draw a RDF Graph for the RDF Statement “ The Book has the title Semantic Web concepts, technologies and Applications”	Applying
48	How to define subclass property in RDFS .	Remembering
49	List the properties used in RDFS.	Analyzing
50	Identify the Object , property and Value in the RDF Statement “ The Book has the title Semantic Web concepts, technologies and Applications”	Applying
PART – B		
51	Explain about XML Elements and Attributes, URIs and Namespaces	Understanding
52	Explain about RDF Statements and vocabularies	Evaluating
53	Give any three examples for RDF Statements Create RDF/ XML code for the above RDF Statements	Understanding Creating
54	Explain about RDF Triples and Graphs	Understanding
55	Summarize the RDF vocabulary by mentioning the term and Description.	Understanding
56	Explain the Classes in RDF Schema with suitable example.	Evaluating
57	Discuss the properties of RDF Schema Discuss the individuals of RDF Schema	Creating
58	Distinguish the RDF and RDF Schema	Analyzing
59	Compare the vocabularies of RDF and RDF Schema	Analyzing
60	Summarize the RDF Schema vocabulary by mentioning the term and Description	Understanding
UNIT IV - OWL		
Introduction- Requirements for web ontology Description Languages- Header Information, Versioning and Annotation Properties-Properties- Classes-Individuals- Data types- A summary of the OWL Vocabulary.		
PART – A		
61	Compare OWL Lite and OWL DL	Analyzing
62	Compare OWL DL and OWL Full	Understanding
63	How to represent the equivalent class in OWL	Remembering
64	Define the datatype property in OWL.	Remembering
65	Define the Object property in OWL.	Remembering
66	How to represent the top and bottom classes in OWL	Remembering
67	How to represent the quantified restriction in OWL.	Remembering
68	Compare the universal restriction and existential restriction in OWL.	Understanding
69	List any four data types in OWL.	Analyzing
70	List the cardinality restriction used in OWL	Analyzing
71	Explain the requirements for Web Ontology Description Languages	Understanding
72	Describe the Header Information ,Versioning and Annotation Properties in OWL. Discuss the properties in OWL.	Creating
73	Explain the Class descriptions and Class Axioms	Understanding



SUBJECT NAME : Semantic web

SUBJECT CODE : 16MCA314C

YEAR & SEM : II & I

Academic Year : 2018-19

74	Discuss the individuals in OWL Discuss the data types in OWL	Creating
75	Summarize the OWL LITE vocabulary by mentioning the term and Description	Understanding
76	Explain the summary of the OWL DL and OWL Full Vocabulary with a neat table	Understanding
77	Compare the OWL Lite , OWL DL and OWL Full in terms of Expressive power. Compare the Classes of RDFS and OWL.	Analyzing
78	List the the set operations which can performed in OWL. List the property Characteristics in OWL .	Analyzing
79	Discuss about property restrictions in OWL.	Creating
80	Compare the RDF and OWL vocabularies.	Understanding
PART – A		
81	Define web service.	Remembering
82	List the basic components of a web service.	Analyzing
83	Who developed the SOAP.	Remembering
84	List on what basis web service architecture is working.	Analyzing
85	List the parts in UDDI registry.	Analyzing
86	To create an OWL-S Ontology for web services what are the requirements.	Create
87	Mention the relationship between OWL-S and WSDL and SOAP	Analyzing
88	What is the vision of Semantic web Services.	Remembering
89	Distinguish search and semantic search	Analyzing
90	List any two applications of Semantic web.	Remembering
PART – B		
91	Explain the basic components of a Web service and also draw a diagram for it .	Understanding
92	Discuss about web service security standards. Discuss about an overview of an OWL-S Service Ontology.	Creating
93	Explain about the Service Profile of an OWL-S Service Ontology	Evaluating
94	Explain about the Service Model of an OWL-S Service Ontology	Evaluating
95	Discuss about the semantic web Applications.	Creating
96	Discuss about the semantic search techniques	Creating
97	How Semantic web is useful in E-Learning.	Applying
98	What is bio-informatics? how semantic web technology is useful in Bio-informatics.	Applying
99	Compare the following in OWL-S Example a) Scenario Description b) Informal process c) OWL-S process	Analyzing
100	Compare SOAP and UDDI Compare WSDL and UDDI	Analyzing