Academic Year (2019-20)

Department of Information Technology (Under Graduate Course) B.Sc.IT

Question Bank

Semester – V

Software Project Management (USIT501)

Advanced Learners

1. Explain how different resources are allocated within a program or project.
2. Explain how project management is controlled (PDLC diagram).
3. Explain difference between modern project management practices and traditional management practices.
4. Explain risk evaluation process.
5. Explain Software prototype model with examples and also explain the advantages and disadvantages of it.
6. How to identify high level risk projects associated with a project?
7. How estimation is done by analogy?
8. How can we use PERT Technique to evaluate the effects of uncertainty?
9. Explain cost monitoring project of process?
10. What is group decision making and obstacles to good group decision making?

Slow Learners

1. What is a project? Explain distinguishing characteristics of a project.
2. Write a short note to the stakeholder.
3. Difference between build or buy. Explain with an example.
4. Short note on objective driven and product driven.
5. Short note on Forward Pass and Backward pass
6. What is a resource? Explain its different categories.
7. What is red/amber/green?
8. What is the contract? Explain different types of it?
9. Write a short note on motivation.
10. What are dispersed and virtual teams?

Assignment

1. What is management?
2. What is a Business Case? Explain the contents of the business case document.
3. Explain different steps for project planning.
4. Short note on COCOMO II.
5. What are the problems with over and under estimate?

Internet of Things(USIT502)

Questions: Advanced Learner

1. Explain the process of prototyping using following terms: 1.sketching 2.familiarity 3.costs versus ease of prototyping
2. Write the case study of “BUBBLINO” to explain the process of prototyping.
3. Which are the new sets of challenges we face while scaling up the production?
4. Compare open source and closed source.
5. What are disadvantages of open source? Explain “open source as a competitive advantage” and “open source as a strategic weapon”.
6. Explain “mixing open and closed source” and “closed source for mass market projects”.
7. What are two main categories of electronics? OR Explain sensors and actuators used in prototyping embedded devices.
8. How to scale up the electronics from breadboard to PCB?
9. Compare microcontrollers with System–On-Chips.
10. List and explain the factors that you need to weigh when deciding how to build your device.

Questions: Slow Learner

1. What are the flavours of the Internet of Things?
2. Write an equation of the “Internet” of “Things". And explain the purpose of IOT.
3. Explain the technology of the Internet of Things.
4. What are enchanted objects?
5. Explain with examples how the technology has always been associated with magic.
6. Who is making the Internet of Things.
7. Describe use of following protocols : IP, TCP and UDP.
8. Write a note on DNS. Compare static and dynamic IP address assignment.
9. Differentiate between TCP and UDP protocols.
10. What are the benefits of using IPV6 in IOT?

Assignments

1. What are the memory management issues in embedded code?
2. How to make the most of your RAM?
3. Explain organising RAM: Stack versus Heap.
4. Explain the concept of performance and battery life.Why we need libraries? List a few libraries available for embedded coding.
5. Explain the history of Business Models.

Advanced Web Programming(USIT503)

Advanced Learners

1. Short note on framework base class library.
2. What are advanced features of ASP.NET ?
3. Explain any 5 templates to create ASP.NET applications.

4. Give the Difference between Websites and Web Projects.
5. What is custom exception and how to raise it in C#?
6. Explain the hierarchy of exceptions in C#?
7. Explain Attribute and Comments in XML with example.
8. Write a short note on the XMLTextWriter class.
9. Explain Single-Value/Simple Data Binding.
10. Explain Repeated-Value Data Binding.

Slow Learners

1. What is .NET Framework? What is in the .NET Framework?
2. Draw and Explain .NET framework architecture
3. What is the difference between .aspx file and .cs file?Explain with an example for each.
4. Explain any five common properties of web server controls.
5. Explain exception handling mechanism in C#?
6. Does finally get executed if the code throws an error? Explain.
7. What is XML? How can we improve listings with XML?
8. Write the basic rules of Valid XML documents.
9. What is Data Binding? Explain its types.
10. What is Data Binding? How does it work?

Assignments

1. What are the different file types available with Asp.Net?
2. Explain Anatomy of a Webform.
3. Explain multiple catch statement in C#.
4. Write short note on the XMLTextReader class
5. How to bind data with Simple List Control? Give an example.

Artificial Intelligence(USIT504)

Advanced Learners

1.Explain PEAS of robotic assembly
2.Explain rational agent working
3. Enlist and explain the limitations of Hill climbing algorithm
4.Write steps for Genetic Algorithm
5.Explain alpha beta pruning with example
6.Formulate the problem of Wumpus World
7.Explain the process of Demodulation and para modulation
8.Explain Modus Ponen rule of lifting
9. Explain the CLASSIC language
10.Explain the knowledge base with categories and objects

Slow Learners

1. Explain simple reflex agent working
2. What is AI? Enlist the applications of AI
3.Explain Breadth First Search algorithm
4.Differentiate between informed and uninformed search techniques
5.Write syntax and semantics for propositional logic
6.Explain the Backtracking concept
7.Explain the following terms
Atomic Sentence, Complex Sentence, Quantifiers, Equality, Existential Quantifiers
8. Explain the process of Knowledge Engineering

9.Explain Planning Graph
10.Write short note on Hierarchical Planning

Assignments

1.Explain Turing Test working
2.Formulate the 8-puzzle problem with initial state and goal state
3.Formulate the problem of Wumpus World
4.Write First Order Logic for Kinship Domain(Family Relationship)
5.Explain characteristics of mental agent

Enterprise JAVA(USIT506)

Advanced Learners

1. Explain requestDispatcher and its method?
2.Explain the application of requestDispatcher interface?
3.Write a program to implement the requestDispatcher method ?
4.What are cookies. Write a short note on cookies?
5.Explain different types of cookies?
6.Explain working and uses of cookies?
7.Explain in detail http.Servlet.class with eg?
8.Write a program to implement cookies?
9.Write a short note on the session?
10.Explain session lifecycle ?

Slow Learners

1.Explain enterprise java application and it's architecture?
2.Write a short note on enterprise edition?
3.Explain java application technology or java enterprise evolution?
4.What is a glassfish server and its uses? Explain.
5.What is java EE server? Everyone.
6.Explain java EE container and it's services?
7.Explain life cycle of a servlet?
8.Compare CGI and servlet.
9.Explain the advantages of using servlet?
10.Explain get() and post() method in servlet?

Assignments

1. Explain the advantages and disadvantages of JSP?
2. Explain difference between servlet and JSP?
3. Write in detail the life cycle of JSP Page? 4. Explain in detail architecture of JSP?
4. Write a short note on JSP technology?
5. Write down the execution process of JSP?