



DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

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NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Phone: 08924-221111 / 221122/9963981111, www.diet.edu.in, E-mail: info@diet.edu.in

Faculty Name : Mrs. K. Sri Lakshmi
Course :B.Tech. Branch : CSE-A&B

Subject : COMPUTER NETWORKS
Year:III Semester :II

UNIT-1 : INTRODUCTION

- 1 (a) Explain the OSI model in detail. [7 Marks]
- (b) Explain, why flow control is handled at two different layers of OSI. [3 Marks]
- 2.(a) Write in detail about TCP/IP model. [6 Marks]
- (b) Distinguish between physical address and logical address.. [4 Marks]
3. (a) Difference between OSI and TCP/IP. [5 Marks]
- (b) Write briefly about ARPANET with an example. [5 Marks]
- 4.(a) Write in detail about Novell networks. [5 Marks]
- (b) What is Internet? Mention some of the applications of Internet. [5 Marks]
- 5.(a) Write about different types of Topologies. [4 Marks]
- (b) Explain about Network categories (LAN,MAN ,WAN). [6 Marks]

UNIT-II : PHYSICAL LAYER AND OVERVIEW OF PL SWITCHING

- 1.(a) Explain the importance of the Physical Layer. [4 Marks]
- (b) What is meant by Switching? Discuss about types of Switching. [6 Marks]
- 2.(a) Explain the FDM with a suitable example. [5 Marks]
- (b) Discuss briefly about Virtual Circuit Networks. [5 Marks]
- 3.(a) Write in detail about WDM. [4 Marks]
- (b) Explain the two types of TDM implementation. [6 Marks]
- 4.(a) Write the differences between FDM,WDM,TDM. [5 Marks]
- (b) Write the differences between Circuit, Packet and Message switching techniques [5 Marks]
- 5.(a) Explain about Circuit Switched Network. [5 Marks]
- (b) Discuss in detail about Datagram Networks. [5 Marks]

UNIT-III : DATA LINK LAYER AND SLIDING WINDOW PROTOCOL

- 1.(a) Write about Data Link Layer .Explain about Framing methods. [5 Marks]
- (b) Write the differences between 'Go-Back-N' and 'Selective-Repeat' sliding window protocols? [5 Marks]
- 2.(a) Discuss in detail about flow control and error control. [5 Marks]
- (b) What is meant by cyclic redundancy check? Discuss it with a suitable example. [5 Marks]
- 3.(a) Discuss about various services provided to Network Layer?. [5 Marks]
- (b) What is HDLC? For what purpose it is used? Explain its frame format. [5 Marks]
- 4.(a) What are the Error Correction mechanisms. [5 Marks]
- (b) Explain about Error Detection mechanisms. [5 Marks]
- 5.(a) Discuss about Check sum. [5 Marks]
- (b) Define point to point protocol. Explain the frame format of PPP. [5 Marks]

UNIT-IV : RANDOM ACCESS AND NETWORK LAYER

- 1.(a) What is ALOHA .Discuss about pure ALOHA and slotted ALOHA? [6 Marks]
- (b)) Discuss in detail about TDMA. [4 Marks]
2. (a) Distinguish between FDMA ,TDMA . [5 Marks]
- (b) What is CDMA? Discuss how it will function. [5 Marks]
3. (a) What is CSMA? Explain about CSMA-CD, CSMA-CA. [6 Marks]
- (b. Explain how token passing is used to control access to the channel. [4 Marks]
4. (a) Explain about Flooding and Hierarchical routing. [6 Marks]
- (b) Explain about broad cast and multicast. [4 Marks]
5. (a) Define routing? Explain routing algorithm shortest path. [5 Marks]
- (b) Explain Distance vector routing with an example. [5 Marks]

UNIT-V : IEEE STANDARDS

1. (a) Discuss the standard Ethernet MAC sub-layer primary responsibilities. [5 Marks]
(b) How IEEE standards contribute to Physical and Data link layers. [5 Marks]
2. (a). Explain the architecture of IEEE 802.11 [5 Marks]
(b) Briefly describe the addressing mechanism in 802.11 (Wi-Fi). [5 Marks]
3. (a) Discuss the standard Ethernet cabling and cable topologies. [5 Marks]
(b) Explain the standard Ethernet Categories. [5 Marks]
4. (a) Explain Manchester encoding. [5 Marks]
(b) Briefly describe the functions of MAC sub layer. [5 Marks]
- 5(a) What are the two modes of operation of IEEE 802.11. [7 Marks]
(b) How fast Ethernet is an improvement from Ethernet. [3 Marks]

UNIT-VI : APPLICATION LAYER (WWW and HTTP)

1. (a) Explain in detail about WWW. [6 Marks]
(b) Explain the importance of the Application layer. [4 Marks]
2. (a) Write about HTTP request and response message format. [7 Marks]
(b). Write about cookies in detail. [3 Marks]
3. (a) Write in detail about DNS architecture. [7 Marks]
(b) Write about Uniform resource locator (URL) in HTTP. [3 Marks]
4. (a) Explain briefly about HTTP operational model. [5 Marks]
(b) Write about Active documents. [5 Marks]
5. (a) Explain about HTTP generic message format . [5 Marks]
(b) Write about Wireless application protocol l(WAP) in detail.. [5 Marks]

(K. Sri Lakshmi)

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Faculty Name : Mr.A.Vasudeva Rao & Mrs. K.Komali

Subject : Design and Analysis of Algorithms

Course :B.Tech. **Branch :** CSE –A& B

Year:III

Semester :II

Unit I : Introduction

- What is an Algorithm. Explain the characteristics of the algorithm. [5 Marks]
 - Write an algorithm for factorial and Fibonacci series. [5 Marks]
- What do you mean by Performance Analysis of an Algorithm. [6 Marks]
 - Define Time and Space complexity of matrix chain multiplication. [4 Marks]
- Describe different Loop Statements used Pseudo code conventions. [6 Marks]
 - Write an algorithm for given number is Palindrome or not. [4 Marks]
- Show that $f(n)+g(n)=O(n^2)$. where $f(n)=3n^2-n+4$ and $g(n)=n\log n+5$. [4 Marks]
 - Explain about all Asymptotic Notations with three examples. [6 Marks]
- What is Recursion. Explain with example, the Direct and indirect recursive Algorithms. [5 Marks]
 - Define Time and Space complexity of Armstrong number. [5 Marks]
- Discuss about Amortized Analysis. [5 Marks]
 - Prove that $f(n)=8n+128=O(n^2)$. [5 Marks]

Unit II : Divide and Conquer

- Explain the Divide and Conquer .How it can be useful in the problem solving. [4 Marks]
 - Apply Quick sort to sort the list E,X,A,M,P,L,E in alphabetical order [6 Marks]
- Define Merge sort with an Example. [6 Marks]
 - Write an algorithm and the running time of Merge sort. [4 Marks]
- Is a Quick sort is a stable sorting method ?Justify your answer. [5 Marks]
 - Explain the Divide and Conquer algorithm for computing no. of levels in a Binary Tree. [5 Marks]
- Apply Quick sort to sort the list 22,55,33,11,99,77,55,66,54,21,32 in ascending order. [5 Marks]
 - Write an algorithm for Quick sort. [5 Marks]
- Define Binary Search with an Example. [6 Marks]
 - Write an algorithm for Binary Search. [4 Marks]
- Explain the concept of Divide and Conquer with example. [5 Marks]
 - Is a Merge sort is a stable sorting method ? Justify your answer. [5 Marks]

Unit III :Greedy Method

1. a. What is Greedy method. Explain with an example. [5 Marks]
b. Explain the control abstraction of greedy method compare this with Dynamic programming. [5 Marks]
2. a. Explain the 0/1 knapsack problem algorithm with greedy concept. [5 Marks]
b. Find the Optimal Solution of the knapsack problem with $n=7, M=15$,
($p_1, p_2, p_3, p_4, p_5, p_6, p_7$)=(10,5,15,7,6,18,3) and ($w_1, w_2, w_3, w_4, w_5, w_6, w_7$)=
(2,3,5,7,1,4,1) [5 Marks]
3. a. Write an algorithm for Prim's minimum spanning tree and give their Time Complexities. [6 Marks]
b. Define minimum cost spanning tree for every connected undirected graph [4 Marks]
4. a. Write an algorithm for Kruskal 's minimum spanning tree and give their Time complexities. [4 Marks]
b. Define minimum cost spanning tree for every connected undirected graph. [6 Marks]
5. a. Explain the Dijkstra's algorithm. [5 Marks]
b. Explain single source shortest path problem with an example. [5 Marks]
6. a. What is Greedy method. Explain about Job-Sequencing with deadline. [4 Marks]
b. What is the solution generated by the function Job-Sequencing when $n=7$,
 $P[1:7]=(3,5,20,18,1,6,30)$ and $W[1:7]=(1,3,4,3,2,1,2)$. [6 Marks]

Unit IV : Dynamic Programming

7. a. Define merging and purging rules in 0/1 knapsack problem. [5 Marks]
b. Find the Solution of the knapsack problem with $n=3, M=20$,
(p_1, p_2, p_3)=(25,24,15) and (w_1, w_2, w_3)=(18,15,10) [5 Marks]
8. a. Explain the problem of all pairs shortest path problem and write its algorithm using Dynamic Program. [7 Marks]
b. Explain the difference between Dynamic Programming and Greedy Method. [3 Marks]
9. a. Explain the OBST Algorithm. [3 Marks]
b. Construct the OBST as a Minimum cost tree. [7 Marks]
10. a. Explain Matrix chain multiplication with an example. [6 Marks]
b. Write an algorithm for Matrix chain multiplication. [4 Marks]
11. a. Explain about Travelling sales person problem and write its applications. [7 Marks]
b. Write an algorithm for Travelling sales person problem. [3 Marks]
12. a. What is Dynamic Program. Define the concept of Reliability design. [5 Marks]
b. Write the difference between Dynamic Programming and Divide and Conquer. [5 Marks]

Unit V: Backtracking

1. a. What is Backtracking. Write the Recursive Backtracking algorithm [5 Marks]
b. Explain about graph coloring and chromatic number . [5 Marks]
2. a. Describe an algorithm of finding m-coloring graph problem using backtracking. [6 Marks]
b. Discuss about State space tree and graph coloring. [4 Marks]
3. a. Explain about an algorithm of n-Queens problem. [5 Marks]
b. Explain about 8-Queen's problem using backtracking concept. [5 Marks]
4. a. Define Backtracking algorithm for 4-Queen's problem. [5 Marks]
b. There are 5 distinct numbers {1,2,3,4,5}.find the combinations of these numbers such that the sum is 9.Use the backtracking model to arrive at the solution. [5 Marks]
5. a. Compare and contrast Brute force approach and Backtracking. [5 Marks]
b. What is Hamiltonoan Cycle? Describe with an example. [5 Marks]
6. a. Write an algorithm for Sum of Subsets Problem. [4 Marks]
b. Solve it for obtaining Sum of Subset for a set $S=\{5,10,12,13,15,18\}$ and $D=30$. [6 Marks]

Unit VI : Banch and Bound

1. a. Explain the general method of Branch and Bound. [5 Marks]
b. Write a short note on LC search. [5 Marks]
2. a. Write an algorithm to solve the 0/1 knapsack problem with BB Method. [5 Marks]
b. Explain the following with an example
i. FULL Reduction ii. Dynamic Reduction. [5 Marks]
3. a. Explain the principles of FIFO branch and bound. [5 Marks]
b. Write FIFOB algorithm for 0/1 knapsack problem. [5 Marks]
4. a. Explain the principles of LIFO branch and bound. [5 Marks]
b. Write LIFO branch and bound algorithm for 0/1 knapsack problem. [5 Marks]
5. a. Write an algorithm of LCBB to find the minimum cost answer node. [5 Marks]
b. Explain how the TSP is solved by using LCBB. [5 Marks]
6. a. Write an algorithm of TSP. [3 Marks]
b. Describe Travelling sales person Problem with example. [7 Marks]



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Department of Computer Science & Engineering QUESTION BANK (Academic Year 2017 - 18)

Faculty : Miss K.V. Ramani, Sr. Asst.Prof, CSE

Course: B.Tech

Branch: CSE

Year/Sem: III-II

Subject: Data Warehousing and Data Mining

Code: RT32052

Regulation: R13

UNIT – I

- 1) (a) Explain the steps in data mining process with a neat diagram. ---5M
(b) Explain the architecture of data mining with the help of a neat diagram. ---5M
- 2) On what kind of data the mining can be performed. Explain in detail ---10M
- 3) (a) Enumerate the applications of data mining. ---3M
(b) What are the challenges in data mining that motivate the mining tasks. ---7M
- 4) Define Data mining. Explain in detail about the major issues that are present in the data mining? – 10M
- 5) (a) What are the origins of data mining? Explain it in detail. ---5M
(b) How can we perform integration of a data mining system with a database or data warehouse system? ---5M
- 6) Discuss in detail about different kinds of patterns that can be mined. ---10 M

UNIT-2

- 1) Explain about different forms of data Pre-processing. –10M
- 2) (a) What are the methods for data normalization . Explain in detail. ---6M
(b) What is noise? What are different techniques to smoothing the data? –4M
- 3) Where we can apply the data reduction technique. Explain the strategies for data reduction. –10M
- 4) (a) what is the use of attribute subset selection. Describe the greedy methods for attribute subset selection. –5M
(b) Discuss about the methods involved in filling the missing values. –5M

- 5) What is the use of Correlation analysis? What is the value for a correlation between two attribute. Explain with an example. –10M
- 6) (a) What are the different steps that are involved in data transformation?--7M
- (b) Explain various methods for the generation of concept hierarchies for categorical data. –3M

UNIT-3

- 1) (a) Differentiate between operational database & data warehouse model. ---5M
- (b) Explain the star schema of data warehouse model with the help of a diagram.---5M
- 2) (a) Explain different OLAP operations in multidimensional data. –6M
- (b) Describe the OLAP servers. –4M
- 3) Explain the data warehouse architecture with neat diagram. ---10 M
- 4) (a) What is OLAP? Briefly describe the indexing of OLAP. –6M
- (b) Explain the snowflake schema of data warehouse with the help of a diagram. –4M
- 5) What is multi dimensional model? Explain different schemas in detail. –10M
- 6) (a) Explain fact constellation schema with the help of a diagram. –4M
- (b) Explain partial materialization in data cube implementation.—6M

UNIT-4

- 1) (a) Define the term entropy, information gain and gini index. How they are useful for attribute selection?—7M
- (b) Write the algorithm for decision tree induction. ---3M
- 2) (a) Mention different characteristics to construct decision tree .—5M
- (b) Explain how cross validation is useful in classifiers of data mining.—5M
- 3) What is a classifier? Why we need classifier? What are the measures available for evaluating the performance of classifier? For an example data (set), briefly describe the usage of cross validation.—10M
- 4) (a) What is meant by model over fitting? How can over fitting done due to presence of noise?—6M
- (b) How splitting is done in continuous attributes? –4M
- 5) Explain in detail about the decision tree induction. –10M
- 6) What are split points? How to find out correct split points. Explain it with an example—10M

UNIT-5

- 1) (a) What are different types of association rules? Give examples. –4M
(b) Explain FP growth algorithm for generation of frequent itemsets—6M
- 2) (a) What is Apriori property? Explain Apriori algorithm with an example. –5M
(b) What is frequent itemset generation? What are candidate itemsets?—5M
- 3) What is pruning? Why pruning is require ?With an example briefly describe FP- growth algorithm. –10M
- 4) (a) Define support & confidence. What is support threshold?—5M
(b) Writ the procedure of closed frequent itemsets. –5M
- 5) What is support counting? Why one need support counting? With an example , briefly describe compact representation of frequent itemsets. –10M
- 6) (a) Explain any association mining algorithm without generating candidate itemsets. –6M
(b) Generate rules after finding frequent candidate itemsets. –4M

UNIT-6

- 1) (a) Explain a basic K-means algorithm with an example. –6M
(b)What are applications of clustering? –4M
- 2) What is DBSCAN? What is the time and space complexity of DBSCAN algorithm? Briefly describe the process for selecting DBSCAN parameters.—10M
- 3) (a) What are additional issues of K-means algorithm? –6M
(b) Describe about the strength and weaknesses of traditional density approach. –4M
- 4) What is a cluster? For a sample data and using appropriate dissimilarity measures, briefly describe the creation of clusters using K-means cluster algorithm. –10M
- 5) (a) Explain about the basic agglomerative clustering algorithm. –6M
(b) What are strengths & weakness of DBSCAN? –4M
- 6) What is bisecting K-means? In what way it is different from the basic K-means algorithm? With a neat diagram, briefly describe the usage of bisecting K-means algorithm and its initialization. –10M

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Faculty Name : Mrs. Athira
Course :B.Tech. Branch : CSE

Subject : Intellectual Property rights & Patents
Year:III Semester :II

UNIT-1 : Introduction to Intellectual Property Law

1. a) What is intellectual property? [4M]
b) What are the various types of Intellectual Property rights? [6M]
2. a) What is the role of Intellectual Property Appellate Board? [4M]
b) Give an account of the development of IP law in India. [6M]
3. a) What are the innovation and inventions of Trade related IPR ? [6M]
b) Explain about the infringement regulatory process [4M]
4. a) “Intellectual Property rights have an in-built sunset”- Explain. [4M]
b) Explain briefly about four important intellectual property rights. [8M]
5. a) Write about “World intellectual property Organization” and its contribution to the growth of the intellectual property law globally.[8M]
b) What is Geographical Indication? [3M]
6. a) What is misuse of IP rights? What are its remedies? [4M]
b) List out various regulatory authorities under the IP laws in India. [4M]

UNIT-2 : COPYRIGHTS

1. a. Explain the principles of Copyrights.[5M]
b. What are the works in which copyright exist? [3M]
2. a. Write an essay on moral rights of an author under the copyright Act.[8M]
b. Write about the copyright ownership Transfer and duration. .[5M]
3. a. How the copyright in a work is licensed? [8M]
b. Explain Right of distribution and performers w.r.t copyrights.[5M]
4. a. What is originality under copyright law? What are the tests laid down for determining infringement of copyright in a computer program? [8M]
b. What are the exceptions to the copyright infringement? [8M]
5. a. What is the method of assigning copyright in a work? [8M]
b. Explain originality in copyright works. [4M]
6. a. What is ‘fair use’ under the copyright law? [4M]
b. Write about the Semiconductor Chip Protection Act[6M]

UNIT-3 :PATENT

1. a) What are the rights of a patent holder? And, Explain the process patent and product patent. [6M]
b) Explain the procedure for obtaining a patent for an invention. [6M]
2. a) Explain the concept of 'ever greening of patents'. [5M]
b) What are not patentable subject matters? And Explain 'provisional specification'. [5M]
3. a) Explain the importance of priority date under patent law and what are the rights of a patentee? What are the limitations to it? [5M]
b) Explain the procedure of obtaining patent for an invention. [8M]
4. a) What is 'patent addition' under the Patents Act? [4M]
b) On what grounds a patent can be revoked under the Patents Act? [6M]
5. a) What are the components of a complete specification under the Patents Act? [5M]
b) What is the purpose of compulsory license under the patent law? [5M]
6. a) Whether mathematical methods be patented? [5M]
b) Explain about Patent cooperation treaty. [5M]

UNIT-4 :TRADMARK

1. a. What is a trademark?[4M]
b. Explain the function of a Trade Mark or service mark? [6M]
2. a. Explain the conditions for registration of a trade mark and the procedure for registration of trademark.[8M]
b. When a trademark owner's right to his trademark is said to be infringed? [8M]
3. a. Explain the concept of passing off and the infringement of trademark.[8M]
b. Explain the concept of dilution of trademark. 6[M]
4. a. What are the qualities of an ideal trademark?[8M]
b. What is false trade description under trade mark law? [3M]
5. a. Explain the process of Trade Mark maintenance.[6M]
b. Write about the Trade Mark Transfer rights[6M]
6. a. Write about the Trade marks Litigations[6M]
b. Discuss about the Trade Mark Law Globally[6M]

UNIT-5 :TRADE SECRET

1. a Explain the trade secret. What are the rights of a owner of trade secrets?[5M]
- b Explain the process of Trade Secrets[5M]
2. a What are the physical securities for the Trade Secret[5M]
- b Explain about the Employee Access Limitations in Trade Secret [5M]
3. a Discuss about the Employee Confidentiality Agreement under Trade Secret[5M]
- b Write about the Trade Secret Law with example.[5M]
4. a Write about confidentiality agreement between Employer and Employee. [8M]
- b Explain the spring board doctrine under the unfair competition law. [8M]
5. a Write about employer–employee non-disclosure and non-competitive agreement. [8M]
- b What is breach of trade secret? Explain the exception to it particularly for the reverse engineering. [8M]
6. a When a trade secret agreement is said to be violated and what are the remedies for it? [8M]
- b When information is called confidential information? What precautions a owner of such information has to take to sustain it as such confidential information? [8M]

UNIT-6 :CYBER LAW

1. a What are various cyber crimes and explain about them. [8M]
- b What is the impact of internet on copyright? [8M]
2. a What is data theft and internet hours theft? [8M]
- b Explain the duties and immunities of an internet service provider under Information Technology Act.[8M]
3. a Explain the offence of hacking. What are the various provisions of the Information Technology Act dealing with the offence of hacking? [8M]
- b What is sensitive personal data or information? How the sensitive personal data[6M]
4. a Explain the importance of Privacy policy of intermediaries like you tube and face book. [8M]
- b Explain the offences of cyber terrorism and cyber extortion.[6M]
5. a Explain ‘cyberspace’ and impact of law.[5M]
- b Write about information technology Act-2000 [5M].
6. a Explain the crime of Cyber stalking. [5M]
- b Explain the methods of data security[5M]

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Faculty Name : Y.Dinesh Kumar

Subject : SOFTWARE ENGINEERING

Course :B.Tech. Branch : CSE

Year:III Semester :II

UNIT-I

- 1) a) Define Software and Software Engineering - 4 Marks
b) Describe about evolution of software engineering Methodologies - 6 Marks
- 2) a) Describe about Software Crisis. - 4 Marks
b) Explain about software Engineering Challenges. - 6 Marks
- 3) a) Explain about Software Process - 5 Marks
b) Describe about Process Classification - 5 Marks
- 4) a) Explain about Phased Development Life Cycle - 4 Marks
b) Explain about software development process models - 6 Marks
- 5) a) Describe about Incremental Process Model - 5 Marks
b) Describe about Spiral Model - 5 Marks
- 6) a) Explain about any two process Models - 6 Marks
b) Explain about Rational Unified Process (RUP) Model - 4 Marks

UNIT-II

- 1) a) Explain about Functional and Non Functional requirements - 5 Marks
b) Explain System and User requirements - 5 Marks
- 2) a) Explain about requirement engineering process - 4 Marks
b) Explain about requirements elicitation and analysis - 6 Marks
- 3) a) Describe about Structured analysis - 5 Marks
b) Explain about data oriented analysis - 5 Marks
- 4) a) Explain about Object oriented Analysis - 4 Marks
b) Explain about prototyping analysis - 5 Marks
- 5) Describe about requirements specification - 10 Marks
- 6) a) Explain about requirement validation - 5 Marks
b) Explain about requirement management - 5 Marks

UNIT -III

- 1) a) Explain about software design process - 4 Marks
b) Describe the characteristics of a good software design - 6 Marks
- 2) a) Explain about design principles - 5 Marks
b) Give a brief description about Modular design - 5 Marks
- 3) a) Explain about design methodologies - 5 Marks
b) Explain about structured design methodology - 5 Marks
- 4) a) Describe about Structured design - 5 Marks
b) Illustrate Transform Vs Transaction Analysis - 5 Marks
- 5) Explain about object oriented analysis and design - 10 Marks

UNIT -IV

- 1) a) Give brief description about coding principles -5 Marks
b) Describe about coding process - 5 Marks
- 2) a) Explain about code verification. -5 Marks
b) Explain about code documentation - 5 Marks
- 3) a) Define the following - 4 Marks
1) Fault 2) Error 3) Failure 4) cost of defects
b) Explain in brief about testing process and role of software testers - 6 Marks
- 4) a) Describe about black box testing with an example - 4 Marks
b) Describe about white box testing with an example - 6 marks
- 5) a) Brief description about test planning - 6 Marks
b) Write about usability testing - 4 Marks
- 6) a) Write about regression testing - 4 Marks
b) Explain about debugging approaches - 6 Marks

UNIT -V

- 1) a) Define Project Management - 4 Marks

- b) Describe about project management essentials - 6 Marks
- 2) a) Explain about software configuration Management - 6 Marks
b) Describe project planning activities - 4 Marks
- 3) a) Explain about software metrics and measurements -- 4 Marks
b) Explain any two effort estimation techniques - 6 Marks
- 4) a) Give a brief description about COCOMO Model - 6 Marks
b) Explain about project size estimation - 4 Marks

UNIT -VI

- 1) a) Explain about software quality factors - 6 Marks
b) Give brief description about verification & Validation - 4 Marks
- 2) a) Describe about Software quality assurance (SQA) - 4 Marks
b) Define CMM Model. Explain different phases in CMM Model - 6 Marks
- 3) a) Define Reengineering. Briefly describe about the reengineering process - 6 Marks
b) Explain reengineering activities - 4 Marks
- 4) Explain about Maintenance process models - 10 marks
- 5) Define software reuse. Explain different types of software reuse. - 10 Marks

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Faculty Name : V.Srinivas

Subject : Web Technologies

Course :B.Tech. Branch : CSE

Year:III Semester :II

UNIT – I

- 1) a) What is a function? Explain how parameters are passed to functions in javascript. [5 Marks]
b) Explain how Frames are created with an example. [5 Marks]
- 2) a) Write about types of CSS. [4 Marks]
b) What is HTML? Explain Common HTML tags with an example. [6 Marks]
- 3) a) Write about internal CSS with an example. [5 Marks]
b) What is HTML <TABLE> tag? Explain <TABLE> sub-tags with an example. [5 Marks]
- 4) a) Explain Java Script Date Object Functions with an example [5 Marks]
b) Write about External CSS with an example. [5 Marks]
- 5) a) Write about Java Script Objects. [4 Marks]
b) Write about Inline CSS with an example. [6 Marks]
- 6) a) What is a frame? What are the advantages of frames? Discuss their usage in WebPages. [5 Marks]
b) What is meant by style? Discuss the mechanisms by which styles can be applied to HTML documents. [5 Marks]

UNIT - II

- 1) a) What is SAX parser? What it produces. [5 Marks]
b) Compare SAX parser with DOM parser. [5 Marks]
- 2) a) What is meant by a valid XML document? Compare it with a well-formed XML document. [5 Marks]
b) Explain the use of XML schema in the process of web designing with an example. [5 Marks]
- 3) a) Explain how XSLT works with neat illustrations. [5 Marks]
b) How XML is useful in defining data for web applications? Explain. [5 Marks]
- 4) a) Discuss the various terms related to document type definition. [5 Marks]
b) Design & Develop an XML schema for student information management. Include every feature available with schema. [5 Marks]
- 5) a) Write about Document Type Definition. [5 Marks]
b) Differentiate between DTD & XML Scheme with an example. [5 Marks]
- 6) a) Write about SAX Parser in detail. [5 Marks]
b) Write about DOM Parser in detail [5 Marks]

UNIT – III

- 1) a) What is AJAX and Explain about it. [5 Marks]
b) about integrating AJAX with PHP [5 Marks]
- 2) a) Define SOAP and Explain in detail about it. [5 Marks]
b) Write about WSDL. [5 Marks]
- 3) a) What is UDDI and Explain about it. [5 Marks]
b) Write in detail about AJAX. [5 Marks]
- 4) a) Write the web services in SOAP. [5 Marks]
b) Write the web services in WSDL. [5 Marks]
- 5) a) Brief about SOAP. [5 Marks]
b) Write about UDDI. [5 Marks]
- 6) a) Write about WSDL. [5 Marks]
b) Write in detail about Integrating PHP and AJAX. [5 Marks]

UNIT – IV

- 1) a) Define PHP and how do you configure wamp and xamp server. [5 Marks]
b) Explain Identifiers in PHP with an example. [5 Marks]
- 2) a) Explain syntax of Arrays in PHP with example. [5 Marks]
b) Explain the Anatomy of a PHP Page. [5 Marks]
- 3) a) Explain Get and Post methods in PHP. [5 Marks]
b) Explain static, global and super global variables with an example. [5 Marks]
- 4) a) Write and Explain a PHP program to connect a database & display the table information. [5 Marks]
b) Explain Identifiers in PHP with an example. [5 Marks]
- 5) a) Explain Operators in PHP. [5 Marks]
b) Write about PHP Control Statements with syntax. [5 Marks]
- 6) a) Discuss how Functions are used in PHP with an example. [5 Marks]
b) Write and Explain a PHP program to store registration form data in a database table. [5 Marks]

UNIT – V

- 1) a) Write about Arrays in Perl Programming. [5 Marks]
b) Write about various operators used in Perl. [5 Marks]
- 2) a) Explain about loops in Perl. [4 Marks]
b) Explain CGI interface configuration in Perl. [6 Marks]
- 3) a) How to develop a mail program in Perl. [5 Marks]
b) Explain simple page search in Perl. [5 Marks]
- 4) a) Explain variables and identifiers in Perl. [4 Marks]
b) Explain Unary and Binary Operators in Perl. [6 Marks]
- 5) a) Explain about control structures in Perl. [4 Marks]
b) Explain about unary operators in Perl. [6 Marks]
- 6) a) Explain Binary operators in Perl. [5 Marks]
b) Explain build in data types in Perl. [5 Marks]

UNIT – VI

- 1) a) Explain Variables in Ruby. [4 Marks]
b) Explain Pattern matching in Ruby. [6 Marks]
- 2) a) Explain Simple IO in Ruby. [5 Marks]
b) How the Control structures work in Ruby. [5 Marks]
- 3) a) Explain Arrays in Ruby. [4 Marks]
b) Explain Hashes in Ruby. [6 Marks]
- 4) a) Explain Data types in Ruby. [5 Marks]
b) Explain any Practical Web applications with Ruby. [5 Marks]
- 5) a) Explain classes in Ruby. [6 Marks]
b) Explain methods in Ruby. [4 Marks]
- 6) a) How the Arrays are declared in Ruby. Explain. [5 Marks]
b) Explain the loops structures in Ruby. [5 Marks]