- Power Point Presentation, Microsoft Excel ,Microsoft Word
- Electronics Transaction Act 2063 B.S,IT policy Of Nepal 2067,Nepali Unicode and Nepali Fonts
- E-Commerce Technology
- Web technology

2. Computer Networks **10 Marks**

- Protocol Stack,Switching
- Link layer: services , error Detection and Correction, Multiple Access Protocols,LANs addressing and ARP(Address Resolution Protocol),Ethernet, CSMA/CD multiple access Protocol ,Hubs,Bridges, and Switches, Wireless LANs, PPP(Point to Point Protocol),Wide Area Protocols
- Network Layer: Services, Datagram and Virtual Circuits, Routing Principles and Algorithms, Internet Protocol(IP) , IP Addressing ,IP Transport, Fragmentation and Assembly ICMP(Internet Control Message Protocol) , Routing On the Internet, RIP(Routing Information Protocol),OSPF(Open Shortest Path First),Router Internals,IPV6
- Transport Layer :Principles, Multiplexing and DE multiplexing ,UDP ,TCP ,Flow Control, Principles of Congestion Control, TCP Congestion Control
- Application Layer: Web and Web Caching , FTP(File Transfer Protocol), Electronics Mail, DNS(Domain Name Services),Socket Programming
- Distributed System and Cluster

3. Structured and Object Oriented Programming **10 marks**

- Object oriented Programming Approach ,Introduction to C++
- Object and Classes ,Operator Overloading
- Inheritance ,Virtual Function , Stream Computation ,
- Templates , Exception Handling
- Polymorphism

4.Data Structures and Algorithms. **10 marks**

- General Concepts: abstract Data Types, Time and Space analysis of Algorithms ,Big oh theta notations, Average ,Best and Worst Case Analysis
- Linear Data Structures
- Tress: General and Binary trees ,Representations and Traversals ,Binary Search Trees ,Balancing trees, AVL trees ,2-3 trees , Red trees ,Self adjusting trees ,splay Trees
- Algorithm Design Techniques: Greedy methods ,Priority queue Search ,Exhaustive Search ,Divide and Conquer ,Dynamic Programming ,Recursion
- Hashing
- Graphs and Digraphs
- Sorting

5. Software Engineering Principles (System analysis and Design) 10 marks

- Software Process:The Software Life Cycle Models ,Risk Driven Approaches
- Software Project Management: Relatioship to LifeCycle ,Project Planning,Project Control ,Project Organization, Risk Management ,Cost Models ,Configuration Management ,Version Control ,Quality Assurance ,Metrices

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नारायण बहादुर विष्ट
प्रमुख प्रशासकिय अधिकृत