UNIT – I
Review of Physical & Data link layer, ISDN, Frame Relay, ATM

UNIT – II
Network Layer: ARP and RARP, Routing algorithms and protocols, Congestion control
algorithm, Router Operation, Router configuration, Internetworking, IP Protocol, IPv6
(an overview).

UNIT – III
Transport Layer: UDP, TCP (Flow Control, Error Control, Connection Establishment)

UNIT – IV
Application layer: DNS, SNMP, RMON, Electronic Mail, WWW.

Network Security: Firewalls (Application and packet filtering), Cryptography, Virtual
Print,

TEXT BOOKS:

REFERENCE BOOKS:
UNIT – I
Parallel computer models: The state of computing , Multiprocessors and multicomputers, Multivector and SIMD computers, Architectural development tracks
Program and network properties :Conditions of parallelism, Data and resource dependences, Hardware and software parallelism, Program partitioning and scheduling, Grain size and latency, Program flow mechanisms, Control flow versus data flow, Data flow architecture, Demand driven mechanisms, Comparisons of flow mechanisms

UNIT - II
System Interconnect Architectures : Network properties and routing, Static interconnection networks, Dynamic interconnection Networks, Multiprocessor system interconnects, Hierarchical bus systems, Crossbar switch and multiport memory, Multistage and combining network.
Processors and Memory Hierarchy : Advanced processor technology, Instruction-set Architectures, CISC Scalar Processors, RISC Scalar Processors, Superscalar Processors, VLIW Architectures, Vector and Symbolic processors
Memory Technology : Hierarchical memory technology, Inclusion, Coherence and Locality, Memory capacity planning, Virtual Memory Technology

UNIT - III
Backplane Bus System: Backplane bus specification, Addressing and timing protocols, Arbitration transaction and interrupt, Cache addressing models, Direct mapping and associative caches.
Pipelining : Linear pipeline processor, Nonlinear pipeline processor, Instruction pipeline design, Mechanisms for instruction pipelining, Dynamic instruction scheduling, Branch handling techniques, Arithmetic Pipeline Design, Computer arithmetic principles, Static arithmetic pipeline, Multifunctional arithmetic pipelines

UNIT - IV
Vector Processing Principles : Vector instruction types, Vector-access memory schemes.

TEXT BOOKS:

REFERENCES BOOKS:
Elective
(Compiler Design)

UNIT - I
Classification of grammars, Context free grammars, Deterministic finite state automata (DFA) Non-DFA.

UNIT - II
Scanners, Top down parsing, LL grammars, Bottom up parsing, Polish expression Operator Precedence grammar, IR grammars, Comparison of parsing methods, Error handling.

Symbol table handling techniques, Organization for non-block and block structured languages.

UNIT - III
Run time storage administration, Static and dynamic allocation, Intermediate forms of source program, Polish N-tuple and syntax trees, Semantic analysis and code generation.

UNIT - IV
Code optimization, Folding, redundant sub-expression evaluation, Optimization within iterative loops.

TEXT BOOKS:
2. A. Holub, “Compiler Design in C”, PHI, 2004

REFERENCES BOOKS:
UNIT – I
Introduction to Personal Communications Services (PCS): PCS Architecture, Mobility management, Networks signalling.
Global System for Mobile Communication (GSM) system overview: GSM Architecture, Mobility management, Network signalling.

UNIT – II
Mobile Data Communication: WLANs (Wireless LANs) IEEE 802.11 standard, Mobile IP.
Wireless Application Protocol (WAP): The Mobile Internet standard, WAP Gateway and Protocols, wireless mark up Languages (WML).

UNIT – III
Third Generation (3G) Mobile Services: Introduction to International Mobile Telecommunications 2000 (IMT 2000) vision, Wideband Code Division Multiple Access (W-CDMA), and CDMA 2000, Quality of services in 3G.
Wireless Local Loop (WLL): Introduction to WLL Architecture, wireless Local Loop Technologies.

UNIT – IV
Global Mobile Satellite Systems: case studies of the IRIDIUM and GLOBALSTAR systems.
Wireless Enterprise Networks: Introduction to Virtual Networks, Blue tooth technology, Blue tooth Protocols.

TEXT BOOKS:

REFERENCE BOOKS:
5. Mobile Computing: Technology Application & Service creation “Talukder” TMH.
UNIT -I


UNIT - II


UNIT - III

Image Segmentation: Detection of Discontinuities, Edge linking and boundary detection, Thresholding, Region Oriented Segmentation, Motion based segmentation.

UNIT - IV
Representation and Description: Representation, Boundary Descriptors, Regional Descriptors, Use of Principal Components for Description, Introduction to Morphology, Some basic Morphological Algorithms.

Object Recognition: Patterns and Pattern Classes, Decision-Theoretic Methods, Structural Methods.

TEXT BOOKS:

REFERENCES:
Elective
Software Testing and Quality Assurance

Unit 1: Introduction/Overview/What is Software Quality, Quality Assurance, Quality Assurance in Context, Quality Engineering.


Unit 4: Feedback Loop and Activities for Quantifiable Quality Improvement, Quality Models and Measurements, Defect Classification and Analysis, Risk Identification for Quantifiable Quality Improvement, Software Reliability Engineering.

TEXTBOOK:

REFERENCE: