# **Bilashpur University & Raigarh University**

# **Most Important Questions**

# COMPUTER ORGANIZATION AND ARCHITECTURE

- Explain floating point arithmetic operation
- Type of Addressing Mode Addressing Mode
- Explain ALU design in detail
- Instruction set
- Registers and Memory
- what is instruction? Explain types of instructions and operands with suitable ExamPle.
- What is main memory ?Explain its types with difference in detailS
- What is virtual memory & Cache Memory
- Instruction Set Architecture & ALU Design
- Hardwired Implementation
- Classification of Computer, Flynn's Classification
- Pipeline, RISC & CISC Pipeline
- Classification of computer on the
- Basis of speed, size, capacity, generation etc.
- Pipeline, Pipeline hazards, Vector Processing, Array Processor.
- Type of Cache Coherence
- Memory Hierarchy: Basic Idea, Main Memory: RAM & ROM
- Exptain different types of computer based on speed and type with their uses  $\Box$  DMA & Tightly Coupled ,MIMD





#### SOFTWARE ENGINEERING

- Explain RAD model all phases with its advantages and disadvantages.
- Define software. What are the important characteristics of software?
- Evolutionary Process Models, Prototyping, Spiral Model, Concurrent Development Model,
- Differentiate between software and process a software product.
- Distinguish between program, software product and module.
- Requirements Engineering
- Software Engineering Practice
- What is software engineering? Also discuss problems of software engineering.
- Explain the concept of analysis pattern.
- What is the need of planning for a software project? Write the major issues of the planning of projecct.
- Describe the following concepts:
- Class based modelling
- Flow oriented modelling
- What do you understand by Data Modelling? Explain.
- What do you mean by the term Design? Define design methodology.
- Define the software testing. What are software testing method?
- Differentiate between verification and vali-dation..
- How is Risk Management



# INTRODUCTION TO RDBMS (ORACLE) / DBMS

- Definition of DBMS, expalin Purpose of Database System.
- Expalin DDL, DML, DCL.
- Explain the different kinds of DBMS users with exaples.
- What do you understand by DBMS? Explain their access methods □ The Relational approach, The Network approach □ Explain different type of data models.
- What do you mean by keys? Explain their types in detail.
- How ER-Model to converted relational schema.
- ER MODEL Concept of keys: candidate key, primary key, alternate key, foreign key
- Strong and weak entities, Case studies of ER modelling Generalization
- relational algebra. Integrity
- explain Not null, unique, check, primary key, foreign key.
- explain Normal forms (1NF, 2NF, 3NF)
- Describe SQL constructs like SELECT, FROM, WHERE, GROUP BY, HAVING, ORDER BY.
- Expalin sql and Commercial database query language, SQL & its environment. SQL



## WEB TECHNOLOGY

- Describe Web Technology. What are the importance characteristics of good web development strategies?
- Introduction to Web Publishing: Introduction, Domain Name Registration, web development strategies
- What is web hosting? Write various applications of webs.
- HTML (ALL INFORMATION)
- CSS (ALL INFORMATION)
- JAVA SCRIPT
- Introduction to PHP,
- Server side scripting,
- Role of Web Server software
- HTTP GET and POST method



## NUMERICAL ANALYSIS

- Regulafalsi method & Newton's method, Bisection method,
- Simultaneous Equations and Matrix, Gauss-Jordan method, Cholesky's method
- Curve-Fitting & Newton's, Gauss
- Forward and Backward differential operators
- Trapezoidal Rule, Simpson's Rule, Boole's Rule, Weddle Rule, Legendre's rule,
- Taylor's Series, Predictor- Corrector Method, Euler's Method, RungaKutta Method, Milne's method.

