

Department of Higher Education, Government of Madhya Pradesh
Yearly Syllabus for Undergraduates
As recommended by Central Board of Studies of Information Technology &
Approved by H E the Governor of Madhya Pradesh
Session 2017-18 Onwards

B.Sc. (IT) First Year
First Paper
Introduction to Information Technology & Computer Organization

Maximum Marks: 40

Unit-I

Introduction to Computer: Types and Classification. Basic Anatomy of Computer: Block Diagram. CPU: Function of each Unit. Memory: Primary, Cache, Flash, Storage Classification: Sequential, Random. Storage devices: Pen drive, Hard disk, and Optical Disk, Blue Ray Disc. Input/Output Peripherals: Input devices –Keyboard; Locator Device –Mouse, Joy Stick, Digitizing Tablet; Pick Device: Light Pen, Touch Screen, Track Ball; Voice Recognition: Microphone; Scanning: MICR, OCR, OMR, Barcode Reader; Vision Capturing: Webcam, Digital Camera, Point of Sale, Touch Pad, Smart Card; Printers: Dot Matrix, Laser and Inkjet Printers, Plotters.

Unit-II

Computer Software: What is Software? Relationship between Hardware and Software, Logical System Architecture showing relationship between hardware, Types of Software: System Software, Application Software, Firmware, Functions of System Software, and Type of System Software: Operating Systems, Language Translators, Utility Programs, Communications Software. Application Software, Commonly Used Application Software: Word Processing, Spreadsheet, Database, Graphics Personal Assistance, Education, Entertainment Software. Open Source Terminologies: Open Source Software, Freeware, Shareware, Proprietary Software, FLOSS, GNU, FSF, OSI.

Unit-III

Word Processing: Introduction to Word Processing. MS Word: features, Creating, Saving and Operating Multi document windows. Editing Text: selecting, Inserting, deleting moving text. Previewing documents, printing document. Formatting Documents: Paragraph formats, Aligning Text and Paragraph, Borders and Shading, Headers and Footers.

Introduction to Excel:

Worksheet basic, Creating worksheet, entering data into worksheet, heading information, data types: dates, alphanumeric values, saving & quitting worksheet.

Toolbars and Menus, keyboard shortcuts, Working with single and multiple workbooks coping, renaming, moving, adding and deleting. Working with formulas & cell referencing, Auto sum, coping formulas.

PowerPoint Presentations: Introduction to PowerPoint, Slide Show, Formatting, Creating a Presentation, Inserting SmartArt & Hyperlinks, Adding Objects, Applying Transition, Animation effects. Adding Table, Charts & Media files.

Unit-IV

Number systems – Decimal Number system, Binary number system and Hexa-decimal number system, 1's & 2's complement, Representation of Positive and Negative Numbers; Binary Fixed-Point Representation, Arithmetic operation on Binary numbers, Overflow & underflow. Floating Point Representation, Codes, ASCII, Logic Gates: AND, OR, NOT and their Truth tables, NOR, NAND & XOR gates. Counters, Registers, Shift Registers.

Abhishek Kumar Samantani

Aradhya
(Dr Anuj Hundet)

(Anubhav)

Umesh Singh
(Dr. Umesh Singh)

Arjun

Rajiv Kumar

Dr. S. K. Kuramita

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Unit-V

Storing data and Program in Memory, Memory Hierarchy in a Computer, Internal Organization of Semiconductor Main Memory Chips, Semiconductor Memory RAM and ROM, Auxiliary Memory, Peripheral Devices, Secondary Storage Memory, Magnetic Memories and Hard Disk, Optical Disks and CD Memories.

Output Devices: VDU, CRT Monitor, LCD Displays, Touch Screen Displays, Print Devices Multiprocessor and Multi core Architecture, Flynn Classification SISD, SIMD, MISD, MIMD.

TEXT BOOK:

1. Computer Fundamentals – B. Ram – New Age International Publishers
2. Digital logic and Computer Design by Malvino leach
3. Fundamentals of Computer by P.K.Sinha
4. W. Hayes, Computer Architecture, McGraw-Hill
5. Microsoft Office – Complete Reference – BPB Publication

REFERENCE BOOKS:

1. William Stallings, "Computer Organization & Architecture", Pearson.
2. BARTEE, "Digital Computer Fundamentals " TMH Publication
3. MORRIS MANO, "Computer System Architecture " PHI

Instruction to paper Setter:

Question paper should be framed in both English and Hindi version.

Lab for B.Sc. (IT) First Year based on paper-I

Suggested list of practical in MS-Word & Excel:

1. Create a banner of college using MS-Word
2. Design a greeting card using WORD ART
3. Create your biodata and use page borders and shading in MS-Word
4. Create a document, insert header, footer, page title, page number using MS-Word
5. Implement Mail-merge
6. Insert table in MS-Word document
7. Create a marksheet using MS-Excel
8. Creation and printing of types of graphs in Excel
9. Built-in functions in Excel

PowerPoint Presentation:

Creating & editing of presentation; Inserting SmartArt, Object, Tables, Charts & Media files. Use of Transition & Animation in the presentations. Set up a slide Show

Student must do 50 Practical exercises on WORD, EXCEL & POWERPOINT in their practical notebook/Print file.

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B.Sc. (IT) First Year
Second Paper
Programming & Problem Solving through C & C++

Maximum Marks: 40

Unit I

History of C, C Character Set, Keywords and Identifiers, Tokens, Basic Structure of C Program, Types of Constants, Data Types, Variables, Type Casting, Operators and Expressions, Input and Output Management in C. Control Statements: *if, if...else, switch....case, while, do...while, for* Loops, Nested Loops, *break* and *continue*, *exit* statements and *goto* statement. Functions: Definition, Library Functions User Defined Functions, Function Prototype, Function Definition, Function Call, Types of User Defined Functions.

Unit II

Arrays: Array Definition, One Dimensional Array, Two Dimensional Array, Arrays and Functions. String Handling: String Library Functions: *strlen, strcat, strcmp, strcpy, strrev*. Pointer: Introduction to Pointer, Understanding Pointers, Declaring Pointer Variables, Pointer and Function (Call By Value and Call By Reference), Pointer and Arrays, Pointer and Strings, Pointer and Structure, Pointer to Pointer. Storage Class: Types of Storage Class: *auto, register, static, extern*.

Unit III

Object Oriented: Procedure-Oriented Programming versus Object-Oriented Programming, Basic concepts of OOPs, Advantages of OOPs, Object Oriented Languages. Introduction to C++ : Structure of C++ program. Classes and Objects Specifying a Class, Defining Member Functions, Inline Functions, Default Arguments, Function Overloading, Friend and Virtual Functions. Private Member Functions, Arrays within a Class, Memory Allocation for Objects, Static Data Members, Static Member Functions, Array of Objects, Objects as Function Arguments, Returning Objects, Pointers to Members.

Unit IV

Constructors and Destructors Constructors, Parametric Constructors, Multiple Constructors in a Class, Constructors with Default Arguments, Dynamic Initialization of Objects, Copy Constructor, Dynamic Constructor, Destructors. Operator Overloading and Type Conversions Definition, Overloading Unary Operators, Binary Operators, Binary Operators using Friends, Rules for Overloading Operators. Inheritance Defining Derived Classes, Single Inheritance, Multilevel Inheritance, Multiple Inheritance, Hierarchical Inheritance, Hybrid Inheritance, Virtual Base Classes, Abstract Classes. Inheritance Defining Derived Classes, Single Inheritance, Multilevel Inheritance, Multiple Inheritance, Hierarchical Inheritance, Hybrid Inheritance, Virtual Base Classes, Abstract Classes, Constructors in Derived Classes.

Unit V

Pointers, Virtual Functions and Polymorphism Pointers to Objects, this Pointer, Pointer to Derived Classes, Virtual Functions, Pure Virtual Functions. Operations C++ Streams, C++ Stream Classes, Managing Output with Manipulators. Working with Files Classes for File Stream Operations, Opening and Closing a File, Detecting EOF, File Pointers, Updating a File, Error Handling During File Operations.

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Rajesh Kumar
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Text Books:

1. E. Balagurusamy, "Programming in ANSI C", TMH, 5th Ed., ISBN 0-07-068182-1
2. A first course in Programming with C, T. Jeypoovan
3. Object Oriented Programming with C++ By E. Balagurusamy, TMH.

References Books:

1. Programming in C++ By Robert Lafore.
2. ISRD-Object Oriented Programming with C++, TMH
3. C++ the complete reference By Herbert Schildt, TMH
4. Mastering C++, Venugopal, TMH
5. Let Us C, Yashavant P. Kanetkar

Instruction to Paper Setter: Question Paper should be framed in both English and Hindi version.

Lab for B.Sc. (IT) First Year based on paper-II

Practicals:

1. A program to find simple and compound interest for the rate of interest.
2. A program to find corresponding temperature in Fahrenheit from a given temperature in Celsius.
3. A Program to accept decimal number and display equivalent number in Octal and Hexadecimal.
4. A program to swap the contents of two variables.
5. Program to accept the distance between two cities in kilometres and print the distance in meter, feet, inches and centimetre.
6. Program to accept the two sides and angle included by these two sides to find area and third side of a Triangle.
7. A program to check whether a given number is even or odd.
8. A program for check whether a given year is leap year.
9. A program to find largest among any five given numbers with minimum condition.
10. A program to find roots of Quadratic equation ax^2+bx+c .
11. A program to print all the prime number between 10 to 100.
12. A Program to print multiplication Table of a number.
13. A program to print number, square and cube of the first 10 natural number.
14. A program to find the factorial of an integer number.
15. A program to generate and print Fibonacci sequence.
16. A program to find the GCD of two Positive integers by successive division.
17. A Program to find the number of Armstrong number between 123 to 425.
18. A program to print truth table from $X*Y+Z$.
19. A Program to generate a menu driven program using switch statement to 1) Add 2) Edit 3) Delete 4) Exit an element from a list of given n numbers stored in array..
20. A Program to find sum of two matrices having size $m*n$ and $p*q$.
21. A Program to Transport the matrix of size $M*N$.
22. A Program to delete an element from list of N numbers.
23. A Program to find sum of each row and column of matrix and also find largest and smallest element in the given matrix.
24. A program to count number of characters including uppercase and lowercase letter, digits, punctuations, space and words that are entered in a given string.
25. A Program to accept the containing 10 number and pass it to function to print it.

Note: Student must write/run 50 programmes on their practical file & Computer lab.

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B.Sc. (IT) Second Year
First Paper
Operating System Concepts & Computer Network

Maximum Marks: 40

Unit - I

Introduction to Operating Systems, Operating system services, multiprogramming, time sharing system, real time systems, storage structures, system calls, multiprocessor system. Basic concepts of Process, states and process scheduling algorithms. Unix Commands: Files and Directories, File permission, Basic Operation on Files, Changing Permission Modes, Standard files, Processes Inspecting Files, Operating On Files, Printing Files, Rearranging Files, Sorting Files, Splitting Files, Translating Characters, On line communication, Off line communication. VI EDITORS General characteristics, Adding text and Navigation, changing text, searching for text, copying and Moving text.

Unit - II

Deadlock problem, deadlock prevention, deadlock avoidance, deadlock detection, Methods for deadlock handling. Concepts of memory management, logical and physical address space, swapping, contiguous and non-contiguous allocation, paging, segmentation. Concepts of virtual memory, demand paging, page replacement algorithms. Disk scheduling basics.

Unit-III

Computer Network: Definition and fundamentals of networks, Goals and Applications, Reference models - OSI and TCP/IP. A Comparative study. LAN, MAN and WAN and topologies, LAN components - File server, Workstations, Network Adapter Cards. Connection Oriented and Connection less services, Switching Techniques - Circuit Switching, Packet Switching. Data Link Layer: Error Detection: Parity Check, Check Sum and Cyclic Redundancy Check (CRC); Correction Technique: Hamming code, Ethernet, token bus & token ring.

Unit-IV

Data Link Protocols: Flow Control: An Unrestricted Simplex Protocol, Simplex Stop-and-Wait Protocol, Sliding Window Protocols: One-Bit Sliding Window Protocol Go Back N and Selective Repeat. MAC Sub layer: Multiple access protocols: Aloha, CSMA Protocols; Collision- Free Protocols; IEEE MAC Sub layer protocols: 802.3, 802.4, 802.5 and their management.

Unit - V

Routing Algorithms: Optimality Principle, Flooding, Distance Vector Routing. Link State Routing, The Network Layer in the Internet: Internet Protocol, Internet addressing and Internet Control protocols. Transport Layer: The Internet Transport Protocol UDP: Introduction to UDP. Introduction to TCP. Application layer: Client Server Architecture, DNS, WWW and HTTP, Cookies, Proxy Server. E-mail Protocols (SMTP, POP3, IMAP, MIME), FTP, TELNET.

Text Books:

1. Computer Networks, Andrew S. Tanenbaum, Addison-Wesley, 4th Ed.
2. Data Communications and Networking, B.A. Frouzan, McGraw-Hill.
3. Operating System Concepts by Silberschatz, Galvin and Gagne.

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Reference Book:

1. Operating system Design & Concept by Milan Milenkovic
2. Operating System by Peterson
3. Unix Operating Systems, Sumitabh Das, Tata McGraw Hills publication.
4. Unix System Administration Handbook (Second edition), Evi Nemeth, Garth Synder, Scott Seebass, Trent R Hein, Pearson Education - Asia, 2000.
5. Design of UNIX Operating System, Maurice J. Back, Pearson Education - Asia.

Instruction to Paper Setter:

Question Paper should be framed in both English and Hindi version.

Lab for B.Sc. (IT) Second Year based on paper-I

Exercises on Unix:

1: Demonstrate the following unix/linux commands:

- i) ls
- ii) cat
- iii) mkdir
- iv) cp
- v) pwd
- vi) chmod with its options, cal, date, who, tty, lp, stty.

2: Explain basic commands for following operations:

- i. Connecting to the system
- ii. Disconnecting from the system
- iii. Text and graphic mode
- iv. Changing your password
- v. Navigating through the file system
- vi. Determining file type
- vii. Looking at text files
- viii. Finding help
- ix. List the different types of file comparisons command.

3: Demonstrate all types of disk related commands.

4: Demonstrate following unix/linux commands:

- (i) md (ii) rm (iii) file (iv) less

5: Demonstrate the following unix/linux commands

- (i) head (ii) tail (iii) wc (iv) paste (v) sort

Bansani

Ahluwalia

Arun

*Daxel
(Dr. Poornam Singh)*

Dr. S. Manick

Chhabra

Rajesh Pandey

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S. K. Singh
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B.Sc. (IT) Second Year
Second Paper
Internet Programming using JAVA

Maximum Marks: 40

Unit-I

Introduction Static & Dynamic Web Pages & Web sites, HTML Forms, scripting languages, Introduction to HTTP, web Server and application Servers, Installation of Application servers, Configuration files, Web.xml. Internet and WWW, JAVA environment, JAVA program structure, Tokens, Statements, JAVA virtual machine, Constant & Variables, Data Types, Type Casting. Operators: Arithmetic, Relational, Logical Assignments, Increment and Decrement, Conditional, Bitwise, Special etc. *If* statement, *if..else..* statement, Nesting of *if...else...* statements, *else...if* Ladder, Switch, Loops – *while, do, for* Loops.

Unit-II

Defining a Class, Adding Variables and Methods, Creating Objects, Accessing Class Members, Constructors, Methods Overloading, Static Members.
Inheritance: Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Finalize Methods, Abstract methods and Classes, Visibility Control.
Arrays: One Dimensional & Two Dimensional, strings, Defining Interface, Extending Interface, Implementing Interface, Accessing Interface Variable, Packages (Basic Knowledge).

Unit-III

Local and Remote Applets v/s Applications, Writing Applets, Applets Life Cycle, Creating an Executable Applet, Designing a Web Page, Applet Tag, Adding Applet to HTML File, Running the Applet, Passing Parameters to Applets, Aligning the Display.

Unit-IV

Java Servlet, Servlet Development Process, Deployment Descriptors, The Generic Servlet Lifecycle. Servlet Packages, Classes, Interfaces, and Methods. Handling Forms with Servlets. Various methods of Session Handling.
Java Database Connectivity: various steps in process of connection to the database, various type of JDBC Driver.

Unit-V

JSP Basics: JSP lifecycle, directives, scripting elements, standard actions, implicit objects. Writing JSPs. Expression Language (EL), Separating Business Logic and Presentation Logic, Connection of JSP with different database viz. Oracle, MS-SQL Server, MySQL. java.sql Package. Type of Statements, Connectionpooling: multiple users and need of connection pooling, Session handling in JSP.

Sanwani

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Ahde

Aruna

Derey
(Dr. Poonam Singh)

(Anubha)

Kamini

Gunhan
(Dr. Manita)

Rujin Pandey

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TEXT BOOKS:

1. E. Balaguruswamy, "Programming In Java", 2nd Edition, TMH Publications ISBN.
2. "Core Servlets and Java Server Pages", 2nd edition, Marty Hall, Larry Brown, Pearson Education.
3. Marty Hall, Larry Brown, "Core Servlets and Java Server Pages", 2nd edition, Pearson Education

REFERENCE BOOKS:

1. Peter Norton, "Peter Norton Guide To Java Programming", Techmedia Publications.
2. "Professional Java Server Programming", S. Allamaraju Wrox Press
3. "Struts Recipes", G. Franciscus, Manning Press
4. "Hibernate in Action", C. Bauer, G. King, Manning Press

Instruction to Paper Setter:

Question Paper should be framed in both English and Hindi version.

Lab for B.Sc. (IT) Second Year based on paper-II

Suggested List of Practical:

1. Write a servlet that prints "Hello World"
2. Write a servlet that knows to whom it's saying hello, This servlet must be called from an HTML page taking user name as input. (Use both get and post method)
3. Write a servlet that counts and displays the number of times it has been accessed since the last server reboot.
4. Write a servlet that counts the times it has been accessed, the number of instances created by the server, and the total times all of them have been accessed.
5. Write a servlet that counts and displays the number of times it has been accessed, and reads an init parameter to know what at what number to begin counting.
6. This servlet counts and displays the number of times it has been accessed, and saves the count to a file in its destroy() method to make the count persistent.
7. Write a servlet that searches for prime numbers above one quadrillion. The algorithm it uses couldn't be simpler: it selects odd-numbered candidates and attempts to divide them by every odd integer between 3 and their square root. If none of the integers evenly divides the candidate, it is declared prime. It's disabled to let the server's CPU handle important tasks.
8. Write a servlet that prints the name and value for all of its init parameters.
9. Write a servlet that displays information about its server (The process is called Snooping).
10. Write a servlet that snoops the server's servlet and Java version.

Notes: Student must write/run 50 programmes on their practical file & Computer lab.

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B.Sc. (IT) Third Year
First Paper
DBMS and RDBMS using Oracle

Maximum Marks: 40

Unit-I

Traditional File Systems versus Modern Database Systems, Introduction and applications of DBMS, Purpose of data base, Data Independence, Schemas and Instances, Database System architecture, level of abstraction, Database users and DBA, Classification of Database Management Systems, Components of database system.

ER Model Concept, Components of an ER Model, Attributes, Relationships, Roles, Participation, Constraints on Relationship Types, Strong & Weak entity set, Advance ER Model Features.

Unit-II

Database Languages and Interfaces, Evaluation of SQL, Between clause, Distinct Clause, Order by Clause, Group by Clause, SQL Functions, Sub queries, Handling null value, Aggregate function, User Defined Function, View, Join Operations.

Introduction to Relational Algebra, Relational Model Constraints, Various operations on Relations. Relational Calculus, Introduction, Tuple Relational Calculus, Domain Relational Calculus.

Unit-III

Relational Database design, Features of good relational database design, Codd's Rule, Integrity constraints, Keys, Armstrong Axioms, Functional Dependency, Closure Set of Functional Dependency, Closure Set of Attributes, Canonical Cover, 1NF, 2NF, Transitive Dependency & 3NF, BCNF, Multivalued Dependency & 4NF, Join Dependency & 5NF.

Unit-IV

Transaction Management, ACID properties, Serializability, Concurrency Control, Lock and types of Locks, Two Phase Locking Protocol, Check Points, Recovery Techniques, Deferred and Immediate data modification.

Emerging Database Technology, Data Warehouse, Data Mining, Distributed database, Mobile Database, Object Oriented Database, Geographical Database, Query Processing and Query Optimization.

Unit-V

PL/SQL Programming using Oracle, Oracle Data types, Looping and Decision Making, Working with Stored Procedure, Trigger, Cursor, Package, Index, Synonym and Sequence. Various Programming Examples.

TEXT BOOK:

1. Ramez Elmasri and Shamkant B. Navathe, "Fundamentals of Database Systems",
2. Database Management System by Seema Kedar, Technical Publication

REFERENCE BOOK:

1. C.J.Date, A.Kannan and S.Swamynathan, "An Introduction to Database Systems
2. Atul Kahate, "Introduction to Database Management Systems",
3. Raghu Ramakrishnan, "Database Management Systems",
4. G.K.Gupta, "Database Management Systems", Tata Mc Graw Hill, 2011.

Instruction to Paper Setter:

Question Paper should be framed in both English and Hindi version.

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UNIT - IV

Introduction and basic concepts of modern communication and telephony technology: CDMA, WLL, GSM, VOIP, Blue-tooth, Wi-Fi. Communication Technology: 2G,3G,4G,5G.

Communication over Radio, Microwave systems, Communication satellites, Radar, Fiber optics, ISDN – their properties, pros & cons of each device.

Network Security: Aspects of Security, Privacy: Encryption and Decryption.

UNIT V

Multimedia: Concept, types of graphics-bitmap & vector graphics, graphic effects and techniques, sound, Music and Video, Uses of multimedia, advantage and Application of Multimedia.

Artificial Intelligence and Expert system- Concepts of AI & Expert Systems, Building of Expert system, Merits and Demerits of Expert system, Application of Expert system and AI.

Introduction to virtual reality: Definition, Applications of VR in Defense, Media, Education & Business.

Elementary Concepts of IoT, Smart Systems, Embedded systems, Cloud Computing.

TEXTBOOKS AND REFERENCE BOOKS:

1. Fundamentals of Information Technology by Alex Leon & M. Leon, Vikas Publications, New Delhi.
2. Frontiers of Electronic Commerce, by Kalakota, Ravi, Stone, Tom, Whinston, Andrew B, Addison Wesley Publishing Co, ISBN8178080575
3. E-Commerce An Indian Perspective (Second Edition) – by P.T. Joseph, S.J. Prentice-Hall of India
4. Security in Computing, third edition, by C.P. Pfleeger, S.Pfleeger and S.Ware, Prentice Hall 2002
5. Mobile communications, Joschen Schiller, Pearson education
6. Recent Magazines of Computers and Communication

Instruction to Paper Setter:

Question Paper should be framed in both English and Hindi version.

Handwritten signatures and initials:
Ammar, Samirani, Chumber, Arde, Umshan, Veeg, Anj, Rujshandey, Daxer, Khandey

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Lab for B.Sc. (IT) Third Year

Note: Solve the following queries using ORACLE.

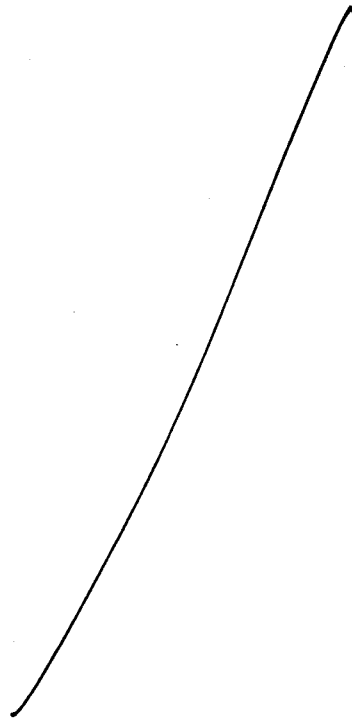
1. List the name & salary of the employee who is working in deptno 30.
2. List the name & salary of the employee who is working as an Analyst in deptno 10.
3. List the name & job of the employee whos salary more than 1000 but less than 2000.
4. List all the deptno from EMP table.
5. List the name & salary of the employee who is working in deptno10, 20, and 30.
6. List the name & salary of the employee who is not working in deptno10, 20.
7. List the entire analyst who is working in deptno 20.
8. Display following output. "SCOTT IS A MANAGER IN DEPARTMENT NUMBER 10 "
9. List the entire clerk whose salary is more than 800 & not working for deptno 10.
10. Give bonus of Rs 500 to all employees working for deptno 30.
11. Find the total salary of the each employee working for deptno 20.
12. Find the oldest employee.
13. List the name of the employee whose salary is more than 1000 & working either in dept 10 or 20.
14. List the name & salary of the employee who are getting no commission for dept 10.
15. List the name & employee code of the employee whose salary is not in the range of 1000 & 1800.
16. List the id & job of the employee whose salary > 2000 & name starts with S.
17. List all employees who joined in 1981.
18. List all employee names and their salaries, whose salary lies between 1500/- and 3500/- both inclusive.
19. List all employees which start with either J or T.
20. List all employee names and jobs, whose job title includes M or P.
21. List all jobs available in employee table.
22. List all employees who belong to the department 10 or 20.
23. List all employee names, salary and 15% rise in salary.
24. List minimum, maximum, average salaries of employee.
25. Find how many job titles are available in employee table.
26. Find second highest salary
27. Display all employee names and salary whose salary is greater than minimum salary of the company and job title starts with 'M'.
28. Find how much amount the company is spending towards salaries

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29. Display name of the department with deptno 20.
30. List ename whose commission is NULL.
31. List ename whose manager is not NULL.
32. Display the employee no and total salary for all the employees
33. Display the employee name and annual salary for all employees.
34. Display the names of employees who are working as clerks, salesman or analyst and drawing a salary more than 3000.
35. Display the names of the employees who are working in the company for the past 5 years;
36. Display the names of all tables from current user;
37. Display the name of the current user.
38. Display the names of employees working in depart number 10 or 20 or 40 or employees working as CLERKS, SALESMAN or ANALYST.
39. Display the names of employees whose names have second alphabet A in their names.
40. Display the names of the employee whose names is exactly five characters in length.

..... The End.....



Answer *Samran* *Chubey* *Coog* *Page 13 | 13*
And *@umbar* *Aty* *Rajendra* *Barell* *Shrey*