FOUNDATION COURSE
DATA ANALYSIS

OBJECTIVE:
Computer field is basically depending upon information. In other words information is data. To aware the student with database management, this course is will be helpful. Student will learn DBMS concepts, creating database, tables, fields and its properties, data types, primary key, adding/editing data, navigating, sorting, indexing, filtering, designing, queries, using forms, report generation facilities, relationships, joins, macros etc.

UNIT I : RELATIONAL DATABASE/DBMS CONCEPTS & USE

OVERVIEW: RDBMS concepts, creating database, tables, fields and its properties, data types, primary key, adding/editing data, navigating, sorting, indexing, filtering, designing, queries, using forms, report generation facilities, relationships, joins, macros etc.

Unit II : INTRODUCTION TO DBMS PACKAGE

Invoking ACCESS, Create Database objects *(Using Wizard, & Design),*

The Data types *(TEXT, DATE, NUMBER, YES/NO, CURRENCY),* Create Table

Insertion of Data into Tables *(INSERT),* Update the Contents of a Table *(UPDATE)*

Uses of the SELECT Command , Displaying/Modifying table Structure, Using Design Mode *(ALTER),* Comparison Operators *(<,>,<=,>=,=,<>),*

Make Table Query, Removing Records *(DELETE),* Eliminating Duplicate Rows *(DISTINCT),* Copying Rows between tables, Prefixing a table and column name

UNIT III : FUNCTIONS:

Aggregate (Group) Functions: *(AVG, COUNT, MAX, MIN, SUM),* Math Functions: *(ABS, CINT, CLNG, VAL, SQRT),* Character Functions: *(LCASE, UCASE, LEN, STR, MID, LEFT, RIGHT, TRIM, LTRIM, RTRIM),* Date Functions: *(DATE, HOUR, DAY, MONTH, YEAR)*

UNIT IV : REPORTS *(USING WIZARD OR DESIGN MODE]*:

Types of Reports, Form, Chart, Label Wizard, Auto Report: Column, Tabular

Master Detail, Grouping, Summary and Details.

MACRO
How to create macro

MAIN REFERENCE BOOKS:

1. Computer Application IV, Vimal Pandya, HK Arts College Publications, Ahmedabad. [Gujarati Book]
2. Computer Applications II, Dr. G. N. Jani, Akshar Publications, Ahmedabad[Gujarati Book]
3 Ms-Office 2000 for everyone by Sanjay Saxena (Vikas Publication House Pvt. Ltd.)
4. MS Access Tutor, BPB Publications

SUGGESTED ADDITIONAL READING:

1. Microsoft Office 2003 The Complete Reference by Curt Simmons, Guy Hart-Davis, Jennifer Kettell, Jennifer Kettell
2. Multimedia and Webdesign Course, BPB Publications
3. Successful projects in access, BPB Publications, Ahmedabad

ACCOMPLISHMENTS OF THE STUDENTS AFTER COMPLETING THE COURSE:

Now student is aware with Types of Data, How to create structure of database, How to insert/modify/delete data using wizard and SQL statements. Even student will be able to alter the structure of database. Student can retrieve data with conditions.

PRACTICAL : DBMS EXERCISES

1) Create the following tables with given structure and specifications:

1. Customer master table: **cust**

Column Name	Format	Remarks
cust_id	text(3)	primary key, not null
lname	text (15)	
fname	text (15)	
area	text (15)	
phone_no	number(9)	

2. Movies master table: **movie**

Column Name	Format	Remarks
mv_no	number(2)	primary key, not null
title	text (25)	
type	text (10)	
star	text (25)	
price	text (8,2)	

3. Invoice transaction table: **invoice**
4.

Column Name	Format	Remarks
inv_no	text (3)	primary key, not null
mv_no	number(3)	
cust_id	text(3)	
issue_date	date	
return_date	date	

2) Insert the following data into their respective tables:

1. Data for **cust** table:

Cust_id	Lname	FnameArea		Phone_no
a01	Bayross	Iran	sa	6125467
a02	Saitwal	Vandana	mu	5569763
a03	Jaguste	Parmada	da	5324252

a04	Navindgi	Basu	ba	7734633
a05	Curies Tammy	da		7845234
a06	Daglas	Creains	ba	7545233

2. Data for **movie** table:

mv_no	title	type	star	price
1	Bloody vengeance	action	Jackie chan	180.00
2	The firm	thriller	Tom cruise	200.00
3	Pretty woman	romance	Richard gere	150.00
4.	Home alone	comedy	Maculae culkin	150.50
5.	The fugitive	thriller	Harrison ford	200.00
6.	Coma	suspense	Michael Douglas	100.00
7.	Dracula	horror	Gary oldman	150.00
8.	Quick change	comedy	Bill Murray	100.00
9.	Gone with the wind	drama	Clarke gable	200.00
10.	Carry on doctor	comedy	Lislie Phillips	100.00

3. Data for invoice table:

inv_no	mv_no	cust_id	issue_date	return_date
i01	4	a01	23-ju1-02	29-jul-02

i02	3	a02	12-aug-02	15-aug-02
i03	1	a03	15-Jun-02	29-Jun-02
i04	6	a04	10-sep-02	28-sep-02
i05	7	a06	05-aug-02	05-aug-02
i06	2	a05	18-jun-02	21-jun-02
i07	9	a05	07-jul-02	28-jul-02
i08	9	a01	11-aug-02	28-aug-02
i09	5	a03	06-jul-02	06-aug-02
i10	8	a06	03-sep-02	06-sep-02

Single Table Retrieval

1. Find out the names of all the customers.
2. Print the entire movie table.
3. Retrieve the list of first name and phone number of all the customers.
4. Print the list of all movie titles whose price is having more than Rs. 150/-
5. Print the information from invoice table of customers who have not been issued movies in the month of July.
6. Display the invoice table information for cust_id 'a01' and 'a02'.
7. List the movie title in descending order of their titles along with its price.
8. Print the names and types of all the movies except horror movies.
9. List the names, area and cust_id of customer without phone numbers.
10. List the names of customers without lname.
11. List the mv_no and inv_no of customers having issues date is more than 01-July 2002.

Using Special Operators:

12. Find the names of all customers having 'a' as the second letter in their fnames.
13. Find the last name of all customers whose name begins with 's' or 'j'.
14. Find the last names of all movie titles having 'O' as second letter.
15. Find the first and last names of all customers that belong to 'sa' area.

16. Find out the customers who stay in an area whose second letter is 'a'.
17. List the mv_no, title and type of movies whose starts begin with letter 'm'.
18. Print the list of all customers who stay in the area 'da' or area 'mu' or area 'gh'.
19. Find the movies of type 'action', 'Suspense' and 'comedy'.
20. Find the movies whose price is greater than 150 and less than or equal to 200.

Having and Group By, Set Function and Concatenation:

21. Find the number of movies in each type.
22. Count separately the number of movies in the 'comedy' an 'thriller' type.
23. Count separately the average price for each type that has a maximum price of 150.00.
24. Calculate the average price of all movies where type is 'Suspense' or 'thriller' and price is greater than or equal to 150.00.
25. List the various movie types available from the movie table in ascending order.
26. Count the total number of movies.
27. Calculate the total price of all the movies.
28. Calculate the average price of each type of movies
29. Find out the maximum and minimum prices of each type of movies. Rename the title max_price and min_price respectively.
30. Count the number of movies having price greater than or equal to 150.
31. Print the type and information of invoice table in the following format for all records:
    a) The Invoice No. of Customer Id. {cust_id} is {inv_no} and Movie No. is {mv_no}

    b) {cust_id} has taken Movie No.{mv_no} on {issue_date} and will return on

       {return_date}.

32. To concatenate the first name column to the area column

Modifying structure of Tables and Record Updations:

33. Insert following more records into the table movietemp.

mv_no	title	type	star	price
1.	Terminator-3	action	arnold	200.00
2.	Die hard	action	Bruce Willis	150.00
3.	First Blood	action	sylvester stallone	150.00
4.	Superman	cartoon	Christopher Reed	175.00

5.	God father	action	Marlyn Brando	180.00
6.	Matrix Reloaded	action	Keanu Reeves	200.00
7.	Cllif Hanger	Adventure	Sylvester stallone	180.00
8.	Die another day	action	Pierce brosnan	200.00
9.	Gladiator	action	Russell Crowe	250.00
10.	Armor of God	action	Jackie Chan	200.00

34. Change the telephone number of pramada to 466389.
35. Change the issue_date of cust_id 'a01' to 24/07/02.

NOTE :

1. The duration of each theory & Tutorial sessions are 55 minutes.
2. The above mentioned theory sessions would be applicable for English and Gujarati (both) medium separately.
3. Per batch 12 students and maximum 5 batch per week is preferable
4. The break-up of practical sessions should be adjusted or managed in the entire academic year according to the minimum or maximum practical sessions prescribed by the Gujarat University in the revised syllabus.
5. The same pattern for practical examination is applicable for the entire test in term of percentage.
6. The journal should be prepared by all the students and certified by the concern authority.
7. Minimum 75% attendance is required to appear for the practical examination.
8. Passing Standard is total 35 mark (out of 100) including theory & practical.
9. The marks (Weightage) of this subject can be allotted during the examination of preliminary and annual (theory and practical) out of 100 marks with weightage of 35% in each.
10. The 30% should be calculated from total internal mark and 70% of external.

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FOUNDATION COURSE

RESEARCH METHODOLOGY

Unit – 1
- A. What is Research ? Basic Components of Research.
- B. Functions of Research.

Unit – 2
- A. Formulation and Development of Research problem.
- B. Formulating of a Hypothesis and Types of Hypothesis.

Unit – 3
- A. Definition of Sampling and Probability sampling – Types of probability sampling :
  1. Simple Random sample
  2. Stratified Random Sample
  3. Cluster sample

- B. Types of Non-Probability Sampling:
  1. Accident samples
  2. Purposive Sample
  3. Quota Sample

Unit – 4

- A. Definition of psychological Test and characteristic of Psychological Test.
  1. Measure ment of behavior Sample
  2. Standardization
  3. Objectivity
  4. Reliability
  5. Validity

- B. Research Report :
  1. Statement of the Problem
  2. The Research Procedures
  3. The Results
  4. The implications drawn from the Results
  5. Summary

REF. BOOKS

1. Seltiz, C, Wright man, L. S. and Cook S.W: Research methods in Social Relations" (3rd Ed. 1976), New york, Holt, Rinehart and winston.
2. Kidder, L. H. Selltiz, Wright man and Cook : Research methods in Social Relations (4th Ed. 1991), Tokyo, Holts Saundress Japan Ltd.
3. zkp. yu.yuLk. ËuMkkR (1993): "Mkk{krsf MktþkuÄLk ÃkæÄríkyku," ÞwrLkðŠMkxe økútÚk rLk{koý çkkuzo, økwshkík hkßÞ, y{ËkðkË.

B.A. SEMESTER VI

FOUNDATION COURSE

A COURSE FOR MANUSCRIPTOLOGY

1. ÃkkXMkBÃkkËLkLkku RríknkMk
2. ÃkkXkuLkwt ðirðæÞ
3. ÃkkLzwr÷rÃk Mktøkúnk÷Þku yLku fux÷kuøk-Ãkrh[Þ
4. r÷rÃk-rð¿kkLk yLku ÃkkLzwr÷rÃk{kt yþwÂæÄyku
5. [íkwŠðÄ MkkuÃkkLkkLkðk÷e ÃkkXMkBÃkkËLk-ÃkkØrík
6. Mk{erûkík ykð]r¥kLkwt MðYÃk