

### **VB. ASSIGNMENT OF UNIT – 1**

1. What is difference between traditional programming language like as c and GUI base Language.
2. Define IDE and explain it in details(IDE,property window, code window, solution Explorer, debug window ,tool box, etc)
3. Explain the major feature of .Net framework.
4. What do u mean by RAD? Explain with taken any one example.

### **Assignment for vb unit -2**

5. What is variable? Explain the type of variable with declaration rules.
6. What do you mean by forcing variable declaration? How to achieve it.
7. Explain the implicit and explicit type conversion with respective examples.
8. What do mean by scope and life time of variable? Explain the logical operator with Supporting an example.
9. What is an array? Explain the type of arrays.
10. Write a program to input n numbers into an array and sort them in ascending order.
11. Write a program to input 100 numbers an array and find out the largest and smallest number.
12. Write a program to calculate the area and perimeter of a rectangle.

### **Unit - 3 vb assignment**

13. What is control statements? Explain them with an example.
14. What do mean by looping? List all loops statements and explain for – each loop with an Example.
15. What do selection control statements? Explain each of them with respective example.
16. Write a program to input 20 numbers into an array and sort them in ascending order.
17. Write a program to input few numbers and find out the largest and smallest number.

### **Unit 4 vb assignment**

18. What is different between subroutine and function ?
19. Write a program to input few numbers and find out their sum using function.

20. Write a program to input 10 numbers into an array and find out the largest number using user define sub routine.
21. Differentiate between block and unblock type exception handling. and explain the type arguments..
22. what do mean by exception? Explain the multiple catch statement with an example.

#### **Unit -5 vb**

23. Define constructor. Explain with syntax how to create constructor as default and parameterized constructor.
24. Define destructor and differentiate between the constructor and destructor.
24. what do mean by abstract method and abstract class. Explain both with suitable example.
26. Write a program to create a class MATH which calculate the area of circle and rectangle. The required value for both shape must be passed and initialized through constructor.
27. Write down the different between function over loading and overriding with respective example.

#### **Unit -6 vb**

28. What do mean by events? Differentiate between events and methods.
29. Write down the following components common properties, events and methods.
30. Textbox, b) list box c)combobox d) tree view control.
31. Write a program to design a form that reads the amount, time , rate and display simple interest in the textbox when user clicks on button.
32. To design a form that takes input as student name(textbox), address(multiline textbox), gender(radio button), class(listbox) and when user clicks on submit button all entered data to be displayed in the message box.
33. To solve above problem, when user click on submit button, the entered data to display into the another form.

#### **Unit – 7 vb**

34. Explain the built dialog boxes.
35. Explain the graphics functions with supporting example.
36. Write a program to read name, address, city of few customers and store into a file called customer.txt file sequentially and read the same data from the file and display.
37. To solve the above question do as randomly.

#### **Unit – 8 vb**

38. Write a program to design a form that reads the detail of customers as customer\_id, customer name, customer address, customer phone and store into the database(customer table) using ADO.net.

39. Write a program to read customer information from the database (customer table) and display.
40. Write a program to read customer information from the database whose customer id 102 and display.
41. Write a program to delete the record of a customer whose id is 105.

#### **DATA BASE ASSIGNMENT FOR THE U-1**

- Q1. Define database. Explain the importance of DBMS.
- Q2. Differentiate between Database Management System and database(traditional database).
- Q3. Explain the demerits of database processing.
- Q4. What do mean by database architecture? Explain the database architecture with figure.

- Q5. What do mean by database model? Explain major database model with drawing neat and clean picture.
- Q6. Explain the database following language: DDL,DML and DCL.

**Q7.** Draw the E-R diagram for the given problem. The University manage their data in the database of the transactions by using the following entities. **Student** this entity is used to store the each student their related information like as student reg number, name, address, phone, email id, etc. **semester** this entity is used to store the semester information like as student reg , year, semester. **Course** this entity is used to registered the course of student and its contains the following information like as *student reg, year, number of subject, subject names(English, dbms, math, account, mis)*. **Transcript** this entity is used to store the transcript information like as *student reg, year and each subject mark, full mark, grade etc.*

**Fees** this entity contains the information related to fees paid by the students, and this table contains the information like as *student reg, date, dues fees, paid fees, balance etc.*

**Q8. Employee Table**

EmpId	EmpName	Address	City	Dept	HRA	Basic Salery
E001	Ramesh Adhikari	BH-1	NHT	Market	2500	18000
E002	Harish Yadav	BH-3	KTM	A/C	4500	25000
E003	Sunita Gupta	BH-1	NHT	Market	2500	18000
E004	Kamana Pandey	BH-3	NHT	A/C	4500	25000
E005	Naresh Kshetri	BH-2	KTM	Manager	5000	50000
E006	Vimal Singh	BH-5	KTM	Market	2500	18000
E007	Kanchan Pandit	BH-7	NHT	HRM	2500	27000
E008	Gauhar Khan	BH-5	POKH	HRM	2500	27000

- Write a sql statement to create the above given table.
- Write a sql statements to insert the values into the table.
- Write a sql statement to list the employee who are working the in department of **market**.
- Write a sql statement to list the employees who are getting salaries more than 25000.
- Write a sql statement to ist the employees who are belong the city either of NGT or POKH.
- Write sql statement to find out the total salary of those employees who are in the dept of A/C
- Write sql statement to list the employees whose name is started with the letter 'S'  
Write a sql statement to list the employees who are working in the same department where Mr. Vimal singh is working.

9) what do mean by model? Explain the various model supported by database with proper figure.

b)

Empid	Empname	Empadd	Empphone	Salary
E001	Sujan lama	Bh-1	9807464544	25000
E002	Anita	Nawalparas i	9445372819	40000
E003	Ajay Sapkota	Ktm-6	8956673425	45000
E004	Sushil pandey	BRT	8970564720	25000

Write relational algebra query to give answer as question given bellow.

- Write relational algebra query to list empid, name phone.
- Write relational algebra query to list employee who belong the address of BRT.
- Write relational algebra query to list employee who belong ether the address of 'ktm-6' or 'bh-1'
- Write relation algebra query to list empid, empname whose salary is between 25000-40000.

#### Database Unit -2 assignment

- Q11. What do you mean by ER-MODEL? Explain E-R model symbols.
- Q12. Draw an E-R diagram for book library management.
- Q13. Draw an E-R diagram for inventory management.
- Q14. Define UML model. Explain the UML class diagram of a book library management.

#### Database Unit -3 Assignment.

- Q15. Define relational algebra. Explain the unary operations of relational algebra with examples.
- Q16. How is relational algebra is differ from sql? Explain the binary operations of relational algebra.
- Q17. What is schema diagram? How is it useful in database designing?
- Q18. Write the relational algebra queries for the given questions.

Employee(empid,empname,empadd,empcity)

Salary(empid,basic salary, medical allowance, house rent )

Department(deptno,empno,deptname)

- i. Write a relational algebra query to find out the tuples from employee relation who live in the city of "ngt"

- ii. Write a relational algebra query to find out the tuples of employee name, city who belong to the city of ngf or ktm

**Unit – 5**

19. What is normalization? Explain the 2NF and 3NF with example.  
20. What are the advantages and disadvantages of normalization? Explain the BCNF with an example.  
21. What do mean by multi value dependence? Explain the 4<sup>th</sup> NF with an example.

**Unit – 6**

22. Why security is necessary in database? Explain the public and private key encryption.  
23. What are the different type of authorization? How view secure our data? Explain

**Unit – 7**

24. Define query processing? Explain its steps with figure.  
25. What do mean by query optimization? How optimizer optimize the query.

**Unit -8**

26. What do mean by file organization? Why do we organize file records properly?  
27. Explain the sequential file and index file organization with proper figure.

**Unit -9**

28. Define crash recovery? Explain the different type of failure causes.  
29. Explain the shadow and log based crash recovery.  
30. What do mean by backup of data? Explain the type of database backup methods in details.

**Unit – 10**

31. Define transaction? Explain the different state of transaction.  
32. Explain the serializability in details.  
33. What do mean by locking? Explain the two phase locking.

**Unit – 11**

34. What do mean by object oriented model? Explain the feature of object oriented model (inheritance, encapsulation, abstraction etc).  
35. Define distributed database? Explain the type of distributed database.  
36. What do mean by replication? Explain the type of replication.