

Subject: Database Systems – DBI202

Number of questions: 60

**Multiple choice question:**

QN=1	Which of following feature is NOT responsibility of Database Management System?
a.	Allow users to create new databases and specify their schemas
b.	Give users the ability to query the data
c.	Support the storage of very large amounts of data
d.	Manage user accounts of computer on which DBMS is running
e.	
f.	
ANSWER:	D
MARK:	0.1
UNIT:	1
LO:	LO1
MIX CHOICES:	yes

QN=2	Which of following statement is correct?
a.	Every relation must have only one primary key
b.	Primary key has only one attribute
c.	Two tuples can have the same values on primary key's components
d.	Super key is a special primary key
e.	
f.	
ANSWER:	A
MARK:	0.2
UNIT:	3
LO:	LO2
MIX CHOICES:	yes

QN=3	The database language that is used to query and modify the database is called_____:
a.	Data Definition Language
b.	Data Manipulation Language
c.	Data Control Language
d.	All of the others
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	6

LO:	LO3
MIX CHOICES:	yes

QN=4	A rule that states that each foreign key value must match a primary key value in other relation is called the _____
a.	Referential integrity constraint
b.	Key match rule
c.	Foreign/primary match rule
d.	Entity key group rule
e.	
f.	
ANSWER:	A
MARK:	0.2
UNIT:	3
LO:	LO2
MIX CHOICES:	Yes

QN=5	A constraint between two attribute sets in a relation is called _____
a.	Functional relation
b.	Attribute dependency
c.	Functional dependency
d.	Functional relation constraint
e.	
f.	
ANSWER:	C
MARK:	0.2
UNIT:	3
LO:	LO2
MIX CHOICES:	yes

QN=6	<p>Given relations [file:F01.jpg]</p> <p>Relation R</p> <table><tr><th>Name</th><th>Class</th><th>Gender</th></tr><tr><td>Hong</td><td>IT01</td><td>Female</td></tr><tr><td>Khoa</td><td>IT02</td><td>Male</td></tr><tr><td>Nga</td><td>IT01</td><td>Female</td></tr></table> <p>Relation S</p> <table><tr><th>Name</th><th>Class</th><th>Gender</th></tr><tr><td>Chung</td><td>IT02</td><td>Male</td></tr><tr><td>Nga</td><td>IT01</td><td>Female</td></tr></table> <p>How many rows in <math>R \cup S</math></p>	Name	Class	Gender	Hong	IT01	Female	Khoa	IT02	Male	Nga	IT01	Female	Name	Class	Gender	Chung	IT02	Male	Nga	IT01	Female
Name	Class	Gender																				
Hong	IT01	Female																				
Khoa	IT02	Male																				
Nga	IT01	Female																				
Name	Class	Gender																				
Chung	IT02	Male																				
Nga	IT01	Female																				
a.	5																					
b.	2																					
c.	3																					
d.	4																					
e.																						
f.																						
ANSWER:	D																					
MARK:	0.2																					
UNIT:	2																					
LO:	LO1																					
MIX CHOICES:	yes																					

QN=7	<div>[file:F04.jpg]</div> <table><tr><th colspan="4">Relation EMPS</th></tr><tr><th>Ename</th><th>Skill</th><th>Gender</th><th>Salary</th></tr><tr><td>Nam</td><td>SQL</td><td>M</td><td>1200</td></tr><tr><td>Hoa</td><td>Java</td><td>F</td><td>1000</td></tr><tr><td>Thai</td><td>SQL</td><td>M</td><td>1100</td></tr><tr><td>Ngoc</td><td>Python</td><td>F</td><td>1000</td></tr><tr><td>Nga</td><td>SQL</td><td>F</td><td>950</td></tr><tr><td>Khoa</td><td>R</td><td>M</td><td>1100</td></tr></table> <p>How many rows are there in re result of <math>\sigma_{Skill="SQL"}(EMPS)</math></p>	Relation EMPS				Ename	Skill	Gender	Salary	Nam	SQL	M	1200	Hoa	Java	F	1000	Thai	SQL	M	1100	Ngoc	Python	F	1000	Nga	SQL	F	950	Khoa	R	M	1100
Relation EMPS																																	
Ename	Skill	Gender	Salary																														
Nam	SQL	M	1200																														
Hoa	Java	F	1000																														
Thai	SQL	M	1100																														
Ngoc	Python	F	1000																														
Nga	SQL	F	950																														
Khoa	R	M	1100																														
a.	0																																
b.	1																																

c.	2
d.	3
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	2
LO:	LO1
MIX CHOICES:	yes

QN=8	<p>Given relations [file:F02.jpg]</p> <p>Relation R</p> <table><tr><th>Name</th><th>Class</th><th>Gender</th></tr><tr><td>Hong</td><td>IT01</td><td>Female</td></tr><tr><td>Khoa</td><td>IT02</td><td>Male</td></tr><tr><td>Nga</td><td>IT01</td><td>Female</td></tr></table> <p>Relation S</p> <table><tr><th>Name</th><th>Class</th><th>Gender</th></tr><tr><td>Chung</td><td>IT02</td><td>Male</td></tr><tr><td>Nga</td><td>IT01</td><td>Female</td></tr></table> <p>How many rows in R - S</p>	Name	Class	Gender	Hong	IT01	Female	Khoa	IT02	Male	Nga	IT01	Female	Name	Class	Gender	Chung	IT02	Male	Nga	IT01	Female
Name	Class	Gender																				
Hong	IT01	Female																				
Khoa	IT02	Male																				
Nga	IT01	Female																				
Name	Class	Gender																				
Chung	IT02	Male																				
Nga	IT01	Female																				
a.	0																					
b.	1																					
c.	2																					
d.	3																					
e.																						
f.																						
ANSWER:	C																					
MARK:	0.2																					
UNIT:	2																					
LO:	LO1																					
MIX CHOICES:	yes																					

QN=9	Which of the following may be used to describe the relationship between two relations?
a.	Super key
b.	Alternate Key
c.	Compose key
d.	Foreign key
e.	

f.	
ANSWER:	D
MARK:	0.1
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=10	The number of entity sets that participate in a relationship is called the _____
a.	Identifying characteristic
b.	Degree
c.	Entity
d.	Entity set
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=11	Suppose relation R(ABCD) with functional dependencies set $F=\{A \rightarrow B, B \rightarrow C, BC \rightarrow D\}$ . Which of followings is a key of R?
a.	A
b.	B
c.	AB
d.	BC
e.	
f.	
ANSWER:	A
MARK:	0.2
UNIT:	3
LO:	LO2
MIX CHOICES:	yes

QN=12	Suppose relation R(ABCD) with functional dependencies set $F=\{A \rightarrow B, B \rightarrow C, BC \rightarrow D\}$ . Which of the highest Normal form of R?
a.	1NF
b.	2NF
c.	3NF
d.	BCNF
e.	

f.	
ANSWER:	B
MARK:	0.2
UNIT:	3
LO:	LO2
MIX CHOICES:	yes

QN=13	Given relation R( <b>ABCDE</b> ) with functional dependencies set $F=\{A \rightarrow B, B \rightarrow C, BC \rightarrow D, C \rightarrow E\}$ . Compute $\{B\}^+$
a.	{ABCDE}
b.	{BCDE}
c.	{AB}
d.	{CDE}
e.	
f.	
ANSWER:	B
MARK:	0.1
UNIT:	3
LO:	LO2
MIX CHOICES:	yes

QN=14	A _____ is a set of attributes of a relation whose values can be used to uniquely identify a row
a.	Foreign key
b.	Super key
c.	Alternate Key
d.	Compose key
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	2
LO:	LO1
MIX CHOICES:	yes

QN=15	A relationship <i><b>Writes</b></i> from <b>Authors</b> to <b>Books</b> should be
a.	An one – one relationship
b.	A many – one relationship
c.	An ISA relationship
d.	A many – many relationship
e.	

f.	
ANSWER:	D
MARK:	0.2
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=16	The normal form which is required every non-key attribute is fully dependent on the primary key is called
a.	1NF
b.	2NF
c.	3NF
d.	BCNF
e.	
f.	
ANSWER:	B
MARK:	0.1
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=17	Every employee can work in one or more projects and every project has a lot of worked employees. This relationship is
a.	Many to many
b.	Many to one
c.	One to one
d.	One to many
e.	
f.	
ANSWER:	A
MARK:	0.1
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=18	Suppose there are two relations R(A,B,C) and S(E,F), and a referential integrity constraint from attribute F of S to attribute A of R, where A is a primary key of R. Which of the followings can violate this constraint?
a.	Insert a new tuple to the relation R
b.	Insert a new tuple to the relation S
c.	Delete an exist tuple from the relation S

d.	All of the others
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=19	Select the right statement
a.	Referential integrity constraint is also called foreign key constraint
b.	A foreign key in one table points to a PRIMARY KEY in another table
c.	A foreign key constraint can be added or deleted using the 'Alter Table' command
d.	All of the answers
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=20	Which of the following terms is NOT a property of a transaction?
a.	Security
b.	Atomicity
c.	Consistency
d.	Isolation
e.	
f.	
ANSWER:	A
MARK:	0.1
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=21	Select the correct statement
a.	The projection operation eliminates duplicated tuples
b.	The selection operation always returns a relation has number of tuples equal zero



c.	The projection operation always returns a relation has the same schema with the relation projected
d.	All of the others
e.	
f.	
ANSWER:	A
MARK:	0.2
UNIT:	2
LO:	LO1
MIX CHOICES:	yes

QN=22	In ERD using Chen notation, the diamond symbol is used to represent an
a.	Entity
b.	Attribute
c.	Key
d.	Relationship
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=23	In the referential integrity constraints, referenced attribute(s) must be _____ and referencing attribute(s) are called_____
a.	Primary key, Foreign key
b.	Foreign key, Primary key
c.	Foreign key, Foreign key
d.	Primary key, Primary key
e.	
f.	
ANSWER:	A
MARK:	0.2
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=24	The ER Diagram uses three principle element types:
a.	Entity sets, Constraints, and Relationships

b.	Attributes, Constraints, and Relationships
c.	Entity sets, Attributes and Constraints
d.	Entity sets, Attributes, and Relationships
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=25	Database users can connect to database management system as
a.	Database administrator
b.	Database designer
c.	Database end-user
d.	All of the others
e.	
f.	
ANSWER:	D
MARK:	0.1
UNIT:	1
LO:	LO1
MIX CHOICES:	yes

QN=26	Data Definition language (DDL) is used to
a.	Query database and modify the database
b.	Connect to database and query database
c.	Create database schemas
d.	All of the others
e.	
f.	
ANSWER:	C
MARK:	0.1
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=27	Choose the WRONG statement.
a.	Null means 'nothing' or without value or consequence
b.	SQL not allows attributes to have a NULL value.
c.	Certain operations on Null can return values if the value of Null is not relevant to the outcome of the operation

d.	The NULL constraint determines whether or not data has to be entered into a column.
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=28	Select right order of using clauses in SQL is
a.	SELECT, WHERE, FROM, GROUP, HAVING, ORDER
b.	SELECT, FROM, WHERE, GROUP, HAVING, ORDER
c.	SELECT, WHERE, FROM, GROUP, ORDER, HAVING
d.	SELECT, FROM, GROUP, WHERE, HAVING, ORDER
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=29	Which of following statements is correct?
a.	INSERT INTO <table_name> VALUES (<list_of_values>)
b.	INSERT INTO <table_name>(<list_of_attributes>) <sub_query>
c.	INSERT INTO <table_name>(<list_of_attributes>) VALUES (<list_of_values>)
d.	All of the others
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=30	Choose the WRONG statement
a.	A database is a collection of information that exists over a long period of time
b.	A DBMS is a software to facilitate the creation and maintenance of a computerized database

c.	A DBMS is expected to control access to data from many users at once
d.	None of the others
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	1
LO:	LO1
MIX CHOICES:	yes

QN=31	Choose the <b>WRONG</b> statement
a.	An attribute is a row of the table
b.	A relation schema is a list of attributes of the relation
c.	Relations are sets of tuples, not lists of tuples.
d.	Each component of each tuple must be of some elementary type such as integer or string
e.	
f.	
ANSWER:	A
MARK:	0.1
UNIT:	2
LO:	LO2
MIX CHOICES:	yes

QN=32	Choose the <b>CORRECT</b> statement
a.	A relation has at least one primary key
b.	Attributes of a key are not allowed to have NULL value
c.	Two tuples in all relation instance do not have the same values in all attributes of the key
d.	All of the others
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	2
LO:	LO1
MIX CHOICES:	yes

QN=33	A relationship is when both participants in the relationship are the same entity set is called
a.	Ternary
b.	Binary

c.	Unary
d.	Primary
e.	
f.	
ANSWER:	C
MARK:	0.2
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=34	Choose the WRONG statement
a.	Relationships are connections among at least two distinct entity sets
b.	A collection of similar entities forms an entity set
c.	We can define relationships involving more than two entity sets
d.	An E/R diagram is a graph representing entity sets, attributes, and relationships
e.	
f.	
ANSWER:	A
MARK:	0.1
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=35	Which of the following is NOT a standard aggregation operator?
a.	SUM
b.	COUNT
c.	AVG
d.	GROUP
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=36	Suppose relation R including 8 tuples, relation S including 5 tuples. How many tuples in RxS (where x is Cross product)
-------	---

a.	13
b.	40
c.	8
d.	5
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	2
LO:	LO1
MIX CHOICES:	yes

QN=37	Suppose the relation Employee(SSN, Fullname, Salary) including 100 tuples. Evaluate the following query: Select Top 3 * from Employee Order by Salary DESC
a.	There are some errors on this query
b.	This query executes successfully but no rows are returned
c.	This query executes successfully, and return all those employees whose salary are maximum
d.	This query executes successfully, and return 3 employees whose salary are the highest
e.	
f.	
ANSWER:	D
MARK:	0.1
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=38	Suppose there is relation PRODUCT(ProductID, ProductName, UnitPrice, Description). Which of the following commands will delete all of products
a.	Delete From PRODUCT
b.	Delete * From PRODUCT
c.	Truncate table PRODUCT
d.	A and C are correct
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	6

LO:	LO3
MIX CHOICES:	yes

QN=39	Suppose two relations R(A:int, B:varchar(10) and S(C:int, D:varchar(10)). Which of the following is valid in SQL ?
a.	ALTER TABLE R ADD CONSTRAINT RCHK CHECK (A IN (1,2,3,4,5))
b.	ALTER TABLE R ADD CONSTRAINT RCHK CHECK (A IN (SELECT D FROM S))
c.	ALTER TABLE R ADD CONSTRAINT RCHK CHECK (A IN (SELECT * FROM S))
d.	ALTER TABLE R ADD CONSTRAINT RCHK CHECK (A, B IN (SELECT C FROM S))
e.	
f.	
ANSWER:	A
MARK:	0.2
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=40	Four characteristics of transactions are
a.	Atomicity, Isolation, Consistency, Durability
b.	Atomicity, Isolation, Concurrency, Durability
c.	Read uncommitted, Read committed, Repeatable read, Serializable
d.	Atomicity, Isolation, rollback, commit
e.	
f.	
ANSWER:	A
MARK:	0.1
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=41	Creating database schema, declaring primary keys as well as referential constraints and so on , are responsibilities of the
a.	database administrator
b.	database designer
c.	database programmer
d.	database user
e.	

f.	
ANSWER:	B
MARK:	0.2
UNIT:	3
LO:	LO2
MIX CHOICES:	yes

QN=42	The join, which connects two tuples with the same values on their same attributes, is called as
a.	theta join
b.	equal join
c.	natural join
d.	outer join
e.	
f.	
ANSWER:	C
MARK:	0.1
UNIT:	2
LO:	LO1
MIX CHOICES:	yes

QN=43	Which of the following may be used to describe the relationship between two relations
a.	Super key
b.	Alternate Key
c.	Compose key
d.	Foreign key
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	7
LO:	LO2
MIX CHOICES:	yes

QN=44	Choose the correct statement.
a.	You can remove a trigger by dropping it or by dropping the trigger table.
b.	The syntax to remove a trigger is: DROP TRIGGER < trigger_name >
c.	Use ALTER TRIGGER to change the definition of a trigger
d.	All of the others.



e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	7
LO:	LO3
MIX CHOICES:	yes

QN=45	A thing or object, which must be stored in database, best describes
a.	data
b.	entity
c.	attribute
d.	relationship
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=46	A ____ is a collections of tables, views, triggers, and so on
a.	Schema
b.	Cluster
c.	Catalog
d.	None of the others
e.	
f.	
ANSWER:	A
MARK:	0.2
UNIT:	2
LO:	LO1
MIX CHOICES:	yes

QN=47	What is a stored procedure in database?
a.	A system relation
b.	A temporary relation
c.	A temporary object
d.	None of the others
e.	
f.	

ANSWER:	D
MARK:	0.1
UNIT:	9
LO:	LO3
MIX CHOICES:	yes

QN=48	Database management systems support following languages, EXCEPT
a.	data definition language
b.	data manipulation language
c.	data controlling language
d.	data securing language
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=49	Authorizing access to database, coordinating, monitoring its use, acquiring software, and hardware resources, _____ are responsibilities of
a.	database administrator
b.	database designer
c.	database programmer
d.	database user
e.	
f.	
ANSWER:	A
MARK:	0.1
UNIT:	3
LO:	LO2
MIX CHOICES:	yes

QN=50	All of followings are correct, EXCEPT
a.	Super key is a key
b.	Key is a super key
c.	If X is a key, then any set of attributes consists of X is super key
d.	Every relation has at least one key
e.	
f.	

ANSWER:	A
MARK:	0.2
UNIT:	3
LO:	LO2
MIX CHOICES:	yes
QN=51	The description of data model consists of all followings, EXCEPT
a.	structure of data
b.	operations on data
c.	constraints on data
d.	privileges on data
e.	
f.	
ANSWER:	D
MARK:	0.1
UNIT:	4
LO:	LO2
MIX CHOICES:	yes

QN=52	A set of (current) tuples for a given relation best describes
a.	relation's schema
b.	relation's instance
c.	relation's content
d.	relation's table
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	2
LO:	LO1
MIX CHOICES:	yes

QN=53	Which SQL keyword is used to retrieve only unique values?
a.	DIFFERENT
b.	DISTINCT
c.	UNIQUE
d.	UNION
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	6

LO:	LO3
MIX CHOICES:	yes

QN=54	A trigger is...
a.	a special type of view
b.	a special type of table
c.	a special type of store procedure, executed when certain event occurs
d.	Non of the others
e.	
f.	
ANSWER:	C
MARK:	0.1
UNIT:	7
LO:	LO3
MIX CHOICES:	yes

QN=55	Functional dependency is
a.	a constraint on two different relations
b.	a constraint on a set of attributes of a relation
c.	a constraint on two sets of attributes of a relation
d.	a constraint on two sets of attributes of two different relations
e.	
f.	
ANSWER:	C
MARK:	0.1
UNIT:	3
LO:	LO2
MIX CHOICES:	yes

QN=56	Subquery cannot be used in
a.	FROM clause
b.	WHERE clause
c.	GROUP BY clause
d.	HAVING clause
e.	
f.	
ANSWER:	C
MARK:	0.2
UNIT:	6
LO:	LO3

MIX CHOICES:	yes
--------------	-----

QN=57	Given relation R(A,B), which of followings is valid?
a.	SELECT A, B, COUNT(*) FROM R GROUP BY A
b.	SELECT A, B, COUNT(*) FROM R GROUP BY A, B
c.	SELECT A, COUNT(*) FROM R GROUP BY B
d.	SELECT A, B, COUNT(*) FROM R GROUP BY B
e.	
f.	
ANSWER:	B
MARK:	0.2
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=58	Given relation R(A, B) with attribute A (nullable) and B (not null), following queries are used to count the tuples of R
a.	SELECT COUNT(*) FROM R
b.	SELECT COUNT(A) FROM R
c.	SELECT COUNT(B) FROM R
d.	A and C
e.	
f.	
ANSWER:	D
MARK:	0.1
UNIT:	6
LO:	LO3
MIX CHOICES:	yes

QN=59	SQL triggers may be awakened by some events, EXCEPT
a.	INSERT
b.	UPDATE
c.	DELETE
d.	ALTER
e.	
f.	
ANSWER:	D
MARK:	0.2
UNIT:	7
LO:	LO3
MIX CHOICES:	yes

QN=60	A trigger belongs to
a.	a single table in the database
b.	all tables in the database
c.	more than one table in the database
d.	none of the others
e.	
f.	
ANSWER:	A
MARK:	0.1
UNIT:	7
LO:	LO3
MIX CHOICES:	yes