DBMS OBJECTIVE FA(POSSIBLE ANSWERS)

********** **SURE CORRECT** **********

Q) Tables Patient and doctor have M : N relationship……**with figure**
Ans - (C) join_pd resides in a newly created table

Q) Which of the following statements TRUE with respect to Agile Methodologies?
(i) Ensures early ROI
(ii) Risk mitigation and Recovery through short deliveries
(iii) High Quality and Productivity can not be guaranteed due to frequent deliveries.

Ans- (C) Only (i) and (ii)
Reference : Lex -> SE -> Agile -> S/W Dev. Approach -> Page 7

Q) Which of the following statements TRUE with respect to Agile Methodologies?
(i) Changes are always welcome
(ii) Emphasizes more communication and need based documentation.
(iii) Single delivery after testing

Ans- Only (i) & (ii)
Reference : Lex -> SE -> Agile -> S/W Dev. Approach -> Page 6

Q) An online apparel store is deployed on-premise. The traffic forecast for the apparel store application varies based on various parameters. What are the implications of the on-premise solution?
(A) Under-utilization of on-premise servers reduces the ROI.
(B) On-premise servers maybe overloaded with the Traffic.
(C) Limited Scalability in the on-premise environment, leads to loss of business continuity
(D) All of the Above

Ans- (D) All of the above
Reference : Software Engineering

Q) An attacker tries to retrieve the data and exploit the websites by altering the Database by inputting queries.
(A) Broken Authentication
(B) SQL Injection
(C) XML External Entities
(D) Security Misconfiguration

Ans - (B) SQL Injection
Reference : Lex -> Introduction to Cyber Security -> Secure Coding OWASP Top 10 -> A1 Injection

Q) For a symmetric cryptography system having n=10 users, how many secret keys are required?

Ans- (C) 45

Logic - For Symmetric Cryptography:

n*(n-1)/2 keys

For Non-Symmetric Cryptography:

2*n keys

Q) Which of the following are FALSE with respect to the DEFAULT clause….

(A) DEFAULT option can be provided only for NOT NULL attributes.

(B) A column can be given the default value by using the DEFAULT option.

(C) The data type of column and default expression need not to be same

(D) DEFAULT option can be provided to any attribute.

Ans - (A) and (C)

Q) In a relationship between two entries user and mobile ……..**Crow foot notation**…..

Ans- (C) 

Q) An employee sends an objectionable email to his colleagues. But the later employee lies that he didn't send this letter. This is known as

(A) Spoofing

(B) Tampering

(C) Repudiation

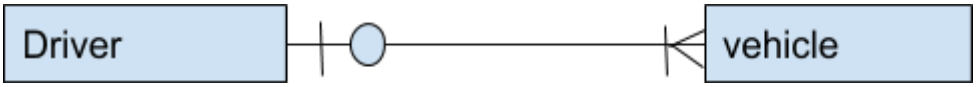
(D) Denial of Service

Ans- (C) Repudiation

Reference : Cyber Security

Q)

Ans-



Q)

Ans- (B) SELECT SUBSTR(TO_CHAR(dob, 'MM/DD/CCYY'), 1, 2) DOB FROM employee

(D) SELECT TO_CHAR(dob, 'MM') DOB FROM employee

Q)
```
CREATE TABLE item(
    itemid VARCHAR2(6) PRIMARY KEY,
    itemname VARCHAR2(10) UNIQUE NOT NULL,
    itemdesc VARCHAR2(20) UNIQUE
);
```
Which of the following statements is TRUE with respect to above command?
Ans- (D) One primary key will be created

Q) Consider a Patient table with attributes patientid(primary key), patientname, city, dateofbirth and phone. Except patientid no columns are ….
IDX1 - patientid
IDX2 - patientname, dateofbirth
IDX3 - dateofbirth, phone
Which of the following queries will result in INDEX UNIQUE SCAN?
(A) WHERE city<> 'Mumbai' AND dateofbirth > '30-Mar-1995'
(B) WHERE patientid = 'P1007 AND dateofbirth > '30-Mar-1995'
(C) WHERE patientnme = 'Sam' AND dateofbirth > '30-Mar-1995'
(D) WHERE patientname LIKE 'R%'

Ans- (B) WHERE patientid = 'P1007 AND dateofbirth > '30-Mar-1995'

Q) SoftCenter, an IT Company, is planning to use Software Tools and Framework on Cloud.
A) Google Compute Engine on GCP
B) Google App Engine on GCP
C) Citrix Xenserver

Ans - (B) Google App Engine on GCP
Explanation : Google App Engine is a PaaS and Google Compute Engine is IaaS.

Q) Out of the following what are the characteristics of Anomaly-based IDS? (Select 2 Correct Answers)
A) It models the normal usage of network and creates a profile
B) It doesn't detect novel attacks
C) Anything unusual happening from the profile is not assumed to be intrusion activity
D) Observes normal behavior of users to create a behavior profile.

Ans- (A) It models the normal usage of network and creates a profile
(D) Observes normal behavior of users to create a behavior profile.
Explanation/Reference : Intrusion Detection System

Q) The test team is carrying out performance testing for a web based Travel Management System, for …… "The system shall support access to 100 travel agents and 100000 Travelers at any time". Which of the following is the testing needed for the above requirement?
(A) Load Testing
(B) Endurance Testing
(C) Functional Testing
(D) Regression Testing

Ans - (A) Load testing
Reference - Software Engineering -> Types of Software Testing

Q) Identify the Activities among the following that are carried out during the coding phase. (Choose exactly 2 Appropriate options)
(A) Compilation of Source Code
(B) Documenting user manual
(C) Arriving at SRS
(D) Finding user needs
(E) Self - Testing of Implemented Code

Ans - (A) Compilation of source code
(E) Self-testing of implemented code
Reference : Software Engineering

Q) A startup is looking for an office automation solution to help its staff collaborate and work efficiently. Which of the following fits best?
Ans: - Deploy a custom-based solution on PaaS offering from cloud

Q) Which of the following is true regarding symmetric cryptography?
(A) Symmetric cryptography uses public-private keys
(B) Requires secure exchange of keys before establishing secure communication.
(C) Symmetric key cryptography provides non-repudiation
(D) Symmetric key cryptography provides message integrity

Ans- (B) Requires secure exchange of keys before establishing secure communication.

Q) An enterprise provides human resource management services such as reskilling, mock interviews, etc, to study premise costs. Which solution meets the requirement?
(A) Deploy the workload in the public cloud
(B) Keep all the data in an on- premise environment and push th apps to the public cloud
(C) Leverage private cloud computing services

Ans - (B) Keep all the data in an on- premise environment and push th apps to the public cloud
Reference : Cloud Computing

Q) Cloud computing describes the on-demand delivery of resources over the web. Which among the following describes features of Cloud.
(A) Rapid Scaling
(B) Dynamic Allocation of Resources
(C) Reduced Management Overhead
(D) All of the Above
Ans - (D) All of the above
Reference : Lex -> Introduction to Cloud Technologies -> Cloud Computing and its Capabilities

Q) A firewall is used to inspect _____ that are going in and out of the Computer
(A) User Requests
(B) Updates
(C) Connections
(D) Data Packets
Ans - (D) Data packets
Reference : Cyber Security

Q) An enterprise has identified other agencies to collaborate with, on common business objectives. Which deployment model should be used?
(A) Community Cloud
(B) Private Cloud that exclusively operates for the requesting Agency
(C) Public Cloud
(D) Hybrid Cloud
Ans- (A) Community cloud
Reference : Lex -> Introduction to Cloud Technologies -> Cloud Deployment models

Q) Effort involved in a project which started on 15th Jan 2013- 1st Oct 2013….
Ans - 25

Q)Which of the following security controls can be used to mitigate SQL Injection vulnerability.
(A) Construct queries using Prepared Statement.
(B) Robust input validation.
(C) Using HTTPS so that communication between client and server is encrypted.
(D) Construct Queries using String Concatenation.

Ans- (A),(B) & (C)
Reference : Lex -> Introduction to Cyber Security -> Secure Coding OWASP Top 10 -> A1 Injection Risks Root Causes and its Mitigation -> Page 2

Q) A group of research enterprises decided to collaborate COVID-19 vaccine research, using cloud services. Which cloud Deployment should be used?
(A) Private Cloud
(B) Public Cloud
(C) Community Cloud
(D) Hybrid Cloud
Ans - (C) Community Cloud

Reference : Lex -> Introduction to Cloud Technologies -> Cloud Deployment Models

Q) Consider the table **product** given below
Table Product

productid	**productname**	**manufacturedate**	**expirydate**
P1001	Hairgro Shampoo	15-Jan-16	15-Jul-17
P1002	Jones Mixed Jam	25-Jan-16	25-Jul-16
P1003	Skingrow Soap	20-Apr-16	25-Oct-16
P1004	Oleano Olive soap	16-Mar-17	16-Sep-17
P1005	Sweet n Spice Sauc	25-Mar-17	20-Aug-17

Query
SELECT * FROM product WHERE ADD_MONTHS(manufacturedate, 6)>= expirydate

How many rows will be fetched when the above query is executed?
Ans- 3

Q)

companyname	**location**	**ranking**
TCS	Delhi	2
Infosys	Mysore	1
Accenture	Mumbai	5
SAP labs	Chennai	4
Deloitte	Hyderabad	3

What will be the third row when the following query is executed?

SELECT companyname FROM company ORDER BY location DESC;
Ans- Deloitte

Q) Consider the table **purchase** given below

purchaseid	customerid	compid	discount	purchasedate	paymentmode	billamount
P101	C101	COM101	8	5-Jun-16	CASH	34951
P102	C106	COM107	10	7-Mar-16	CARD	46195
P103	C102	COM105	7	8-Jul-16	CARD	35796
P104	C103	COM106	5	8-Oct-16	CARD	34057
P105	C103	COM106	10	10-Oct-16	CASH	32265
P106	C104	COM102	6	11-Jul-16	CASH	40232
P107	C105	COM103	5	15-Jul-16	CARD	54997
P108	C106	COM105	8	7-Mar-16	CASH	35411

SELECT p1.customerid, p1.compid **FROM** purchase p1 **INNER JOIN** purchase p2
ON TO_CHAR(p1.purchasedate, 'MON') = **TO_CHAR**(p2.purchasedate, 'MON')
AND p1.customerid = p2.customerid **AND** p1.purchaseid <> p2.purchaseid

How many rows will be fetched when the above query is executed?
Ans- 4
Output -

CUSTOMERID	COMPID
C103	COM106
C103	COM106
C106	COM105
C106	COM107

********** **MAYBE CORRECT** **********

Q) Which of the following describes the features of PaaS? (Multi- correct)
(A) Shared Infrastructure => Vote 1
(B) Dedicated Infrastructure
(C) Pre-built runtime
(D) Reduced deployment overhead => Vote 1
Ans - A,C // As per priya

Explanation: PaaS provides Platform as a service i.e. it provides resources(hardware) as well as application (runtime environment) for the users.

Q) Most employees in an organisation are only granted “Standard User” rights on their computers. Only some employees including IT Administration are granted "Administrator User" rights. What is the Rationale Behind this?

(A) Users must be granted the minimum level access that is required to carry out their required routine activities

(B) Software licensing does not allow all users in an organization to have "Administrator User" rights.

(C) The reason is adherence to Defence in Depth strategy which says users should have the minimum level of access to a resource

(D) The minimum number of users must be granted the maximum level of access. This ensures access violations are reduced. This approach is called Secure Default Access.

Ans - ?????

********** **INCOMPLETE QUESTION** **********

Q) The following transaction logic is executed on the trip table

BEGIN

UPDATE trip SET amount…..

……

Ans - (A) Both the update and delete are reflected in the database.

Q) …….

eccno and floorno is COMPOSITE PRIMARY KEY and employeeno is the FOREIGN…

……..

Ans- (A) INSERT INTO ecc VALUES (‘E75’, 2, 5894)

(D) INSERT INTO employee(employeeno) VALUES (5890)

Q) ……..

SELECT p.projectid, p.projectname, a.empid FROM project p

FULL OUTER JOIN allocation a ON p.projectid=a.projectid IS NOT…..

How many rows will be fetched when the above query is executed?

Ans- (B) 3

Q) ……..

SELECT COUNT(DISTINCT routeid) FROM service GROUP BY acfacility;

How many rows will be fetched when the above **SELECT** query is executed?

Ans- (A) 5 // Don’t know

(C) 2 // which one

Q) ……..
SELECT DISTINCT qtyavailable FROM toys
WHERE price< (SELECT MAX(price) FROM toys WHERE qtyavailable > 150)

How many rows will be fetched when the above query is executed?
Ans- (C) 2

Q) ……..
SELECT customername FROM customer c INNER JOIN…….
WHERE accounttype IN (SELECT accounttype FROM …….
(SELECT MAX(COUNT(accounttype)) FROM account GROUP BY ……

How many rows(s) will be fetched when the above query is executed?
Ans- (D) 2

Q) ……..
SELECT empno, empname FROM employee e1 WHERE salary >=
(SELECT AVG(salary) FROM employee e2 WHERE e1.location=e2.location AS…...

How many rows(s) will be fetched when the above query is executed?
Ans- (D) 3

Q) ……..
SELECT s1.shopid, s1.salesamount FROM shop s1, shop s2 WHERE s1.dateofsale=s2.dateofsale

How many rows(s) will be fetched when the above query is executed?
Ans- (B) 4

Q) ……
INSERT INTO book VALUES('P1005', 'Passion Spent', 'C')

Choose the option that correctly identifies the outcome of their statements
Ans - (C) Tom insert fails due to CHECK constraint violation whereas Dick's insert also fails due to CHECK…..

Q) ……..

DELETE FROM employee WHERE compid IN(20, 30);
DELETE FROM computer WHERE model = 'Edge'

Which of the following statements are TRUE when the above queries are executed sequentially?

Ans- (B) There will be two computers of make 'Dell'
(D) There will be two Male employees

Q) ……..
Maria writes the following query……
SELECT studentname, subject, marks FROM student ORDER BY subject, marks;

Which of the following STUDENTNAME appears in the third record of the output?

Ans- (C) Louise

Q) ……..
select * from customer where gender in ('M', 'F') and dob like '%Mar%';

Which of the following index will be used for the above query?

Ans- (C) No index will be used

Q)

Ans- SELECT DISTINCT p.prodid, p.name, pp.custid FROM product p LEFT JOIN purchase pp ON p.prodid = pp.prodid

Q)

Ans - (D)

SELECT SUBSTR(studentid, 2) STUDENTID, **LOWER**(studentname) || '-' || studentid) STUDENT **NVL**(**TO_CHAR**(marks), 'NA') MARKS **FROM** STUDENT **WHERE** studentname **LIKE** '%e'

Q)

Ans- (B) **FROM** product p **LEFT OUTER JOIN** orders o **ON** p.productid=o.productid
GROUP BY p.productid, o.paymode
(D) **SELECT DISTINCT** p.productid, o.paymode, **SUM**(p.price) totalprice
FROM orders o **RIGHT OUTER JOIN** product p **ON** p.productid=o.productid
AND payment **IS NOT NULL GROUP BY** p.productid, o.paymode

Q)

Ans- (C) ALTER TABLE student DROP (country)
ALTER TABLE student ADD (cgpa NUMBER(3, 2), dept CHAR(3))

Q)

Ans- (D) **SELECT** ename, e.managerid **FROM** employee e **LEFT OUTER JOIN** manager m
ON e.managerid = m.mangerid **WHERE** e.managerid **IS NOT NULL**

Q)

Ans- (C) where arrivalcity='Kolkata' and trainname LIKE '%s'

Q) ……..

(i) Scribe
(ii) Reviewer

(iii) Author
(iv) Moderator
Ans- (C) (i)-(c); (ii)-(a); (iii)-(d); (iv)-(b)

Q)
Ans- (B) teacher(teacherid, teachername, salary)
Subject (subjectid, subjectname)
Allocation (teacherid, subjectid, deliverymode, fee)

Q) ……
Which will be the resulting relational schema after converting to 3NF?
Ans- (C) player (playerno., playername, playertype)
game(gamername, gametype, duration, amount)
discount(playertype, gamername, discount)

Q)
Ans- (C)

DATE1	**DATE2**
26-DEC-17	26-MAR-17

Q)
Ans- (D)

BOOKNAME	**NOOFSTUDENTS**
Networking	2

Q)
Ans-

TOYID	**TOYTYPE**	**TOYCATEGORY**
T101	ActionFigure	B
T102	Boardgame	A
T103	SportGame	C
T104	Others	C
T105	SoftToy	A

T106	BoardGame	B

Q)

Column Name	**Data Type and Size**	**Constraint**
modelno	VARCHAR2(5)	PRIMARY KEY
brand	VARCHAR2(20)	
manufacturedate	DATE	DEFAULT SYSDATE
sensor	CHAR(3)	CHECK(sensor……..)
price	INTEGER	

Ans- Either (A) AND (B) (more pressure) || (B) AND (D)
(A) INSERT INTO mobiledetail(model, price) VALUES(M1001, 10000);
(B) INSERT INTO mobiledetail VALUES (M1002, 'Nokia', 25-Aug-1993, 'Yes', 10000)
(C) INSERT INTO mobiledetail(brand, sensor, price, modelno) VALUES('Motog…….)

Q)
Ans-

BOOKID	**BOOKNAME**
303	Sense and Sensibility
302	Persuasion
304	Lady Susan
301	Emma

Q)

……..	…….	…….	……..
C901	P802	HSBC	UK
C902	P803	SWD	Canada
C903	P805	ICICI	California
C904	P803	SWD	Canada
C905	P806	RBS	Netherland
C906	P807	Amron	Canada

Ans- (B) DELETE FROM client WHERE clientlocation = ‘Canada AND clientname=’SWD’
(D) DELETE FROM project WHERE projectcode IN (‘P804’, ‘P801’)

Q)
Ans-

PROJECTDOMAIN	AVGSAL	TOTALBONUS
Insurance	40000	1300
Telecom	21667	600

Q)
Ans- (C)

STUD_NAME	**COURSEID**
Katherine	C3

Q)
Ans- (B)

CUSTOMERID	**CUSTOMERNAME**
C703	Phillip
C702	Scott
C701	Halen

Q)
Ans- (C)

CUSTNAME	**CUSTTYPE**
Felix	PRIVILIGED
Jack	REGULAR

Q) Consider a mongodb collection **book** given below
…….
db.book.update({_id : 903}, {$set: { Rating: 8……..
……..
How many documents will be retained in the collection book after executing the above query

Ans- (B) 3

Q) Consider a mongodb collection **book** given below
>db.boof.find();
……
db.book.update({_id : 1002}, {$set: { Rating: 4……..
……..
How many documents will be retained in the collection book after executing the above query
Ans- ?????

Q) …….
…….

planid	**customerid**	**weight**	**target**
P101	C101	70	50
P102	C102	90	70
P103	C103	110	80
P104	C106	80	50
P105	C105	90	70

Query
SELECT customerid **FROM** customer **WHERE** customername **LIKE** '%e%
UNION
SELECT planid **FROM** dietplan **WHERE** weight **BETWEEN** 90 **AND** 100

How many rows will be fetched when the above query is executed?
Ans- ???

Q) ……
…….

SA3	B1	Seattle	S2
SA4	B2	New York	S4
SA5	B1	Detroit	S2
SA6	B3	Boston	S1
SA7	B3	Seattle	S2

SA8	B4	New York	S4

Query
SELECT bookname, studentname FROM student s, book b, booksale bs
WHERE b.bookid=bs.bookid AND s.studentid=bs.studentid
AND gender = 'F' AND bs.stidentid IN (SELECT studentid FROM booksale
GROUP BY studentid HAVING COUNT(DISTINCT bs.bookid) =
(SELECT MIN(COUNT(bookid)) FROM booksale GROUP BY bookid)) AND LENGTH(bookname)<12

What will be the output when the above query is executed?

(A)

BOOKNAME	**STUDENTNAME**
Brain Teasers	Maria
Science Revolution	Alice

(B)

BOOKNAME	**STUDENTNAME**
Tech World	Maria
India Today	Susan

(C)

BOOKNAME	**STUDENTNAME**
Brain Teasers	Maria
India Today	Susan
Science Revolution	Alice

(D)

BOOKNAME	**STUDENTNAME**
Science Revolution	Alice

Tech World	Maria
India Today	Susan

Ans- ???