

**GOVERNMENT COLLEGE UNIVERSITY, FAISALABAD****QUESTION PAPER FOR EXTERNAL EXAMINATIONS**

BA/ B Sc. (Composite)

Annual -2012

Sub: Computer Studies

Course Title: Computer Studies

Paper: - B

Time Allowed: 03:00 Hours    Maximum Marks: 70

Pass Marks: 33%

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Notes: Attempt Three question from Part-I and Three questions from part-II.

**Part-I (Database Management Systems)****Max Marks: 35****Question 1 in part-I is compulsory. Attempt any two questions from the remaining questions in part-I****Q-1. Choose the most appropriate option for the following statement and write on the provided answer sheet. (Please write only correct options, no need to write whole answer).(Marks:10)**

- 1) What does SQL stand for?
  - a) Strong Question Language
  - b) Structured Question Language
  - c) Structured Query Language
  - d) Semi-Structured Query Language
- 2) Which SQL Statement is used to insert new data in a database?
  - a) ADD RECORD
  - b) ADD INTO
  - c) INSERT
  - d) ADD NEW
- 3) A DBMS is
  - A) Another name for database system
  - b) Independent of a database
  - c) Dependent on application programs
  - d) Is a set of procedures which manage a database

- 4) The Process of Normalization
- a) Is automatic using computer program
  - b) Requires one to understand dependency between attributes
  - c) Is manual and requires semantic information
  - d) Is finding a key of Relation
- 5) With SQL, how do you select a column named "First Name" from a table named "Persons"?
- a) EXTRACT first name FROM persons.
  - b) SELECT first name FROM Persons.
  - c) SELECT Persons First Name
- 6) In an E-R diagram entities are represented by
- a) Circles
  - b) Rectangles
  - c) Diamond Shaped Box
  - d) Ellipse
- 7) Pick the meaningful relationship between entities
- a) Vendor Supplies goods
  - b) Vendor Talks with customer
  - c) Vendor complaints to Vendor
  - d) Vendor ask Prices
- 8) Which SQL keyword is used to sort the result set?
- a) SORT BY
  - b) ORDER
  - c) ORDER BY
  - d) SORT
- 9) With SQL, how can you delete the records where the "first name" is "peter" in persons table?
- a) DELETE FROM persons WHERE First Name= 'peter'
  - b) DELETE ROW First name = 'Peter' FROM Persons

10) Primary key always uniquely identifies each record in a table

- a) True
- b) False
- c) Statement is not clear

**Q-2. a) Write a brief note on history of database processing. (Marks: 4.5)**

**b) Draw an Entity Relationship Diagram (ERD) for the following company.(Marks:8)**

Golden company wants to computerize its sales system. Golden Co. has its network across the Country. Country is distributed in zones. Each zone covers one or more cities. Each cities has one or More distributors. Golden company has number of Products. Some products have more than one Packing size. The sales Process is: Delivery order is made for each approved order. One delivery order Can be serves in more than one supply depending on the availability of material in the stores. For each Supply Invoice is made. Invoice should be made from the delivery order. Therefore we have to save the Records of pending items in delivery order. Golden company has dealing with number of Transporters. Invoice also contains the name of transporter. Golden company receives payments from the Distributors. We have to save the record of each distributor.

**Q-3. a) Define Entity. Attribute and relationship with examples. (Marks: 4.5)**

**b) Discuss different type of database anomalies with examples. (Marks: 4)**

**c) Define Functional Dependency and its types with examples. (Marks: 4)**

**Q.4. a) Write SQL Statement: (Marks: 4.5)**

- i) Which create the following table STUDENT?
- ii) Which insert the following given data in STUDENT table
- iii) Which display all students name who earns more than 3.00 CGPA?

First Name	Address	Class	CGPA
Maryam	Lahore	BS-CS	3.25
Bilal	Islamabad	BS-SE	2.25
Faisal	Quetta	BS-IT	3.65

b) Normalize the following HBL “ Branch-Staff” Relation upto 3<sup>rd</sup> Normal form but step by step

Show each intermediate resultant table with its data. (Mark: 8)

**Branch Staff**

B#	Address	S#	S name	Salary	C #	C name
B1	PU Old Campus	B1S1	Naveed	45000	C1	PUCIT
B1	PU Old Campus	B1S2	Nadia	20000	C2	PUCAD
B1	PU Old Campus	B1S3	Kirn	38000	C1	PUCIT
B2	PU New Campus	B2S1	Ifrah	46000	C1	PUCIT
B2	PU New Campus	B2S2	Naveed	50000	C5	Phy.Dept.
B2	PU New Campus	B2S3	Umer	38000	C3	Eng.Dept.

**Note:**

**B#** Branch number      **S#** Staff Number      **Sname** Staff name

**C#** Client number      **Cname** Client name

**Part-II (Operating System and Networks)**

**Max marks: 35**

**Note:**

1: Question 5 in part –II is compulsory.

2: Attempt any two question from the remaining question in part -11

Q.5. Choose h most appropriate option for the following statements and write on the provided answer

Sheet. (Please write only correct options, to write whole Answer. (Marks: 10)

- 1) A process is in a \_\_\_\_\_ state, if that process has halted its execution but a record of it is maintained. Process is still maintained by the operating system.
- A) Running                      b) Ready                      c) Blocked                      d) Terminate
- 2) On a system that used simple paging, memory is divided into fixed-size blocks called page frames.
- a) True                      b) False                      c) Statement is not clear
- 3) A process is in a \_\_\_\_\_ state, if that process has been created but will not be considered for loading into memory or for execution.
- A) Running                      b) Exit                      c) Held                      d) Terminate
- 4) The number of processes the system can execute in a period of time is called: throughput of a system.
- a) True                      b) False                      c) Statement is not clear
- 5) A process is in a \_\_\_\_\_ state, if it is executing on a CPU.
- A) Running                      b) Exit                      c) Held                      d) Terminate
- 6) The \_\_\_\_\_ model shows how the network functions of a computer ought to be organized.
- a) ITU-T                      b) OSI                      c) ISO                      d) ANSI
- 7) As the data packet moves from the lower to the upper layers, headers are \_\_\_\_\_
- a) Added                      b) Subtracted                      c) Rearranged                      d) Modified
- 8) Layer 2 lies between the physical layer and the \_\_\_\_\_ layer.
- a) Network                      b) Data link                      c) Transport                      d) Presentation
- 9) A tree topology is a variation of a \_\_\_\_\_ Topology.
- a) Mesh                      b) Star                      c) Bus                      d) Ring
- 10) A television broadcast is an example of \_\_\_\_\_ transmission.
- a) Simplex                      b) Half-duplex                      c) Full-duplex                      d) Automatic

**Q.6. a) Differentiate Swapper and Dispatcher. (Marks: 6.5)**

**b) Discuss briefly Distributed Operating System (Marks: 6.)**

**Q.7.a) Discuss "Overlaying" Memory Management Scheme and Also Discuss one Disadvantage of this Scheme. (Marks: 6.5)**

**b) Write a note on Simple Segmentation. (Marks:6)**

**Q.8.a) Discuss briefly Functions of Physical Layer of OSI Model. (Marks: 6.5)**

