# ANSWER BOOKLET

Option: CSC - CSM

Subject: DATABASE & WEB DESIGN

Academic Year: 2016

Read carefully the instructions on the back

## FOR EXAMINER'S USE ONLY

<table>
<thead>
<tr>
<th>QUESTIONS</th>
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</tbody>
</table>
SECTION I.

01. Database management system (DBMS) is an application software which manages database.

- It is a software package that facilitates creation, management, and control of database.

- It is a tool that facilitates creation, management, and control of database.

- Example: SQL Server, MySQL, Oracle, ...

02. The Relational Database is a type of relationship database model where data are stored in the form of related tables.

- The Relational Database is characteristic of database structure which allows to define the relationship between their relations.

- It is a set of tables in database and its relationship.

03. Database approach | File approach

| Data independency | Data dependance |
| Data integrity | Data duplication |
| Data security | Difficult to access |
| No data duplication | Not secured |
| Data access | Data are separated and isolated |
| Ease of access | }
04. Weak entity
   - depends on another entity
   - is not represented by its attribute alone
   - does not have sufficient attributes to form the primary key
   - symbol:
   - It is a child table

05. Alter Table Students DROP Column department;

06. HTTP
   - Stands for Hypertext Transfer Protocol
   - Allows to access the web pages from webserver
   - Port number: 80

FTP
   - Stands for File Transfer Protocol
   - Allows to transfer file between computer on network
   - Port number: 21 or 22

07. TAGS
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;html&gt;</td>
</tr>
<tr>
<td>&lt;body&gt;</td>
</tr>
<tr>
<td>&lt;br&gt;</td>
</tr>
<tr>
<td>&lt;!DOCTYPE --&gt;</td>
</tr>
</tbody>
</table>

08. Tag parts are: Attribute name & Attribute value
    Attribute name = tag property / tag identifier
    Attribute value = Characteristic & attribute name
    e.g.: bgcolor = "yellow"
09. **Attributes** | **Functions**
--- | ---
Align | used to set the position of object or text
Valign | vertical alignment
Bgcolor | sets background color
Background | set the background image / color
Id | CSS selector

10. ```html
< html >
< head >
< title > _ _ _ < / title >
< / head >
< body > 10.5
<b>
Hello <br> 10.5
You delivered your assignment on time. <br> 10.5
Thanks <br> 10.5
Web instructor 10.5
</b>
</body>
</html> ```

11. Web server: Powerful computer which hosts websites
    Powerful computer which delivers a webpage

12. Horizontal lines are used when we need to separate the HTML content into horizontal lines
    Corresponding tag = `<hr>`

13. a) Domain - is a real world object
    Table (column and rows)
    ```
    +------------+----+
    | Symbol     | ☐  |
    +------------+----+
    ```
    ```
    Symbol: ☐
    ```

    b) Entity Domain: is a set of allowable values of an attribute/attribute column/field
    ```
    One to many relationship - is a type of relationship where one record of entity A is related with many records of entity B
    e.g.: one teacher teaches many students
    ```
- SQL Syntax analysis: DBMS verifies the statement already provided by the user.
- SQL Data manipulation: DBMS analyses the provided command.
- SQL Output processing: DBMS retrieves results according to provided command.

SECTION II

15. <!DOCTYPE html>
<html>
<head>
<title>---</title>
</head>
<body>
table border = '1'
<thead>
<tr>
<th>list1</th>
<th>list2</th>
<th>list3</th>
</tr>
</thead>
<tbody>
<tr>
<td>yellow</td>
<td>Apple</td>
<td>table</td>
</tr>
<tr>
<td>blue</td>
<td>Mango</td>
<td>chain</td>
</tr>
</tbody>
</html>
16. A) Select * from Books;
   Update Books set Edition = 'Ed2' where BookID = '123';

B) Select * from Books where Publisheddate < 2001;
   Delete from Books where Publisheddate = 1985;

C) Select * from Books Publisheddate < 2001;

17. Domain name is a set of characters that is used to represent a website or webpage.

   1. It is a set of characters that correspond to an address of a given domain.
   2. It is an address of the website.

* Four country code top level domains:
  .au
  .us
  .br
  .fr
  .uk
  .de

* Four generic domains:
  .com
  .org
  .net
  .gov
  .biz
18. Ways to avoid Spammers:
- Do not open emails from unknown sources.
- Install firewall.
- Do not respond to spam mail.
- Spam filters.
- You must have at least two email addresses.
- Do not use autoresponders.
- Do not subscribe to online links.

19. Rules of Jacob Nielsen:
- User-friendly.
- System visibility.
- Attractiveness.
- Flexibility.
- Consistency.
- Help and documentation.
- Error prevention.
- Aesthetic and minimalist.
- Match between the system and real world.

SECTION III
20. A) *Entity: real world object*
- Any existing real world object that has characteristics.

* Entity type: set of entities that share the same definition.
* Entity set: a collection of entities with the same definition and share the same attributes.

B) *DML (data manipulation language) is an SQL statement component that is used for data manipulation using the following:*
- INSERT: used to add new values/record into a table.
- SELECT: used to extract/interrogate/display data from a table.
- UPDATE: used to change/multiply/update data/contents.
- DELETE: used to remove/delete records/data.
DDL (Data Definition Language) is an SQL component used to define or describe the structure of an object using the following commands:

- CREATE is used to create a new object.
- ALTER ADD is used to change an object.
- DROP is used to remove/delete an object.

C) Yes/No; True/False: 1/0

21. A) # is used to reference HTML element using a # symbol in CSS.

* For example: `<div id="one"> <div>
  #one
  
</div>`

* CLASS is used to reference HTML element using a . symbol.

* For example: `<div class="one"> <div>`

B) SPAN is used to merge cells in HTML tables.

* For example: `<table>
  <tr>
    <td colspan="2"> <td>
  </table>`

* SPAN is used for the shortest section of element. For example, one character or finer level.

  * e.g.: `<span> C </span>`

* DIV is an HTML element that is used to divide a webpage into multiple sections.

  * e.g.: `<div> This is one section </div>

  <div> This is second section </div>`
A) The logical representation of database structure in the form of a skeleton structure of database. For example:
1. my name VARCHAR(12)
2. Create table my_table

B) TRUNCATE is a command in SQL used to empty, delete/remove all contents/records at the same records.
While DELETE is used for removing/deleting some records.

C) 1) Select ID, No from Students where NAME = "Moses"
2) Select ID, No from Students where OPTION = "CSM"
3) Select Count(*) from Students
4) Select Count(NAME) from Students
5) Select Upper(NAME) from Students

--- END ---