

TEST PROJECT
PRACTICAL SKILLS

**MODULE 1: SYSTEM ANALYSIS AND DESIGN &
DATABASE DESIGN**

MAJORS: SOFTWARE TECHNOLOGY

Exam Paper Code: SAT04

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| SCHOOL LEADERSHIP | CHIEF SUBCOMMITTEE ON EXAM DEVELOPMENT |
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Guide contestants

| Student's name | Date of birth | Placement | Module 1 |
|----------------|---------------|-----------|--|
| | | | System Analysis and Design & Database Design |

GUIDE CONTESTANTS

Module 1: System Analysis and Design & Database Design

Time:

- Preparation Time: 05 minutes
- Time Duration: 150 minutes
- Break Time: 10 minutes

Scores:

| Exam content | | Marks |
|--------------|----------------------------|-------|
| 1 | System Analysis and Design | 50 |
| 2 | Database Design | 50 |
| Total Marks | | 100 |

Candidates are required to note:

- Ensure safety standards of health and computer
- Do the test independently without discussing while doing the test
- Comply with regulations of exam room and proctor's instructions
- Fill the information in the form
- Complete all requirements in the content of the exam
- Do not use documents, the Internet and other communication devices during the assignment
- If the exam does not have special requirement for the file name and storage location, contestants save all exam file name in the folder as following format:

D:\WorkSkills\System Analysis and Design & Database Design

<Student's Name>_< Student code >[.< extension >]

| Student's name | Date of birth | Placement | Module 1 |
|----------------|---------------|-----------|--|
| | | | System Analysis and Design & Database Design |

CONTENT OF THE TEST

Question 1:

Considering the building materials store management system as follows:

A building materials store wants to build a database to manage its business. The store buys raw materials from suppliers. Every time a store needs to buy a material, the store needs to make an order. Each order should specify the items and quantity. Materials information includes material code, name of material, unit of calculation. In the order, it is necessary to specify code of the order, the date of issue and the full name of the employee making the order. When the supplier ships the goods, the store will issue an import slip. Each import slip contains information such as the import slip code, date of import, which order entered, items imported, quantity and unit price entered. An order may have to be imported more than once, but each import order only one order. The goods are classified according to the type of goods for easy management. Each type of goods includes information such as type code, type name.

Customers will go to the store to buy the materials. Each time a customer buys materials, the store will issue a bill. Information of the bill includes code of the bill, the date, export to any customer, full name of the employee making the delivery note, items with the same quantity, unit price, total amount.

Please do the following request:

- Draw ER model for the above system.
- Convert ER model to logical data model.

Question 2:

Based on the previous ER model (Question 1), write SQL statements to do the following:

- Create a database and name it ***MaterialStoresManagement*** then create tables with reasonable data types
- Create constraints on tables to ensure the accuracy and reliability of the data.
- Insert 3 valid records into each table.
- Select all fields from *Material* table and sort the result in ascending order by material name.
- Create a view that selects order's information what was created in September, 2020.
- Create a procedure that inserts a new material.

Assessment guidelines

| | | |
|----------------|---------------|-------------------------|
| Student's name | Date of birth | Position |
| | | Computer Network Design |

GENERAL TRANSCRIPT

| Exam content | | Maximum Marks | Achieved Marks |
|--------------|----------------------------|---------------|----------------|
| 1 | System Analysis and Design | 50 | |
| 2 | Database Design | 50 | |
| Total Marks | | 100 | |

TEST TIME

| Get to know the equipment | | Time Duration | | Break Time | | | |
|---------------------------|--|---------------|--|---------------|--|---------------|--|
| Starting time | | Starting time | | Starting time | | Starting time | |
| Ending time | | Ending time | | Ending time | | Ending time | |

TEACHERS' SIGNATURE

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
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