



12 Pages

RTAWE

FL 5

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or award marks for legible script and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

1	Student Number	P151698
2	Title of Examination Paper	Database management systems
3	Module Code	ACCA5014
4	Date and Time of Examination	09/05/19
5	Examination Venue	
6	Seat Number	G016
7	Number of Answer Books handed in	

List the numbers of the questions you have attempted	Office Use
Q1	18
Q2	6.5
Q3	6
Total	30.5

(Gweler yr ochr arall am y fersiwn Cymraeg)

Question 7

Examiner Only

Q1. ~~CREATE TABLE Personal-Details~~

i)

CREATE TABLE TutorBooking (

BookingRef Char(5) NOT NULL ~~DEFAULT~~
CONSTRAINT CHK-BookingRef CHECK (BookingRef
Like 'A-2' [0-9] [0-9] [0-9] [0-9],)

BookingDate ~~DATE~~ NOT NULL DATETIME
NOT NULL DEFAULT (timestamp.now),

TutorNo int~~char~~(5) / NOT NULL,

StudentNo int~~char~~(5) / NOT NULL,

SubjectID int~~char~~(3) / NOT NULL,

SubjectLevel int(1) / NOT NULL.

HourlyRate Decimal / NOT NULL.

)

6.75

ii)

ALTER TABLE TutorBooking
ADD CONSTRAINT PK - BookingRef (1)
PRIMARY KEY (BookingRef)

iii)

ALTER TABLE TutorBooking
ADD CONSTRAINT FK - TutorNo
FOREIGN KEY REFERENCES ~~TutorSubject~~
TutorSubject (tutorNo),

iii) ALTER TABLE TutorBooking
 Add constraint Fk - Student No
 Foreign key ^{missy} ^{column} references Student (Student No).
 missy 1 (1.75)

iv) CREATE TABLE TutorSubject
 TutorNo int(s) not null
 Constraint Rk - TutorNo PRIMARY KEY
 Subject

iv) Create Table TutorSubject
 TutorNo int(s) not null
 Constraint Fk - TutorNo Foreign key references
 Tutor (TutorNo). ^{missy}
 incorrect PK, FK

SubjectID int(3) not null
 Constraint PK - SubjectID Primary Key
 Constraint Ck - SubjectID CHECK (SubjectID
 Like 'EO-9JEO-9J EO-9J').

KsLevel int not null.

ALLevel int not null.

HELevel int NOT NULL.

MinHourlyRate Decimal not null
 Default (25).

MaxHourlyRate Decimal not null
).



b) 1) ^{columns} SELECT * FROM Tutor 1.25
 WHERE DBSEXPiryDATE
 = >= '01/06/19' AND <= 30/06/19
 missig order by

UPDATE
~~SELECT~~ * FROM Tutor
 WHERE DBSEXPiryDATE
 => '01/06/19' And <= '30/06/19'
 with "PENDING DBS check"

~~QUEST~~ 0.25 incorrect syntax

18

Q1-18

Question 2

- A. External - Database is located off elsewhere not physically readable X
- External - Database is hosted externally on 0 X
 a local machine.
- Conceptual - Database that is just a concept. X X
- b) i). indexes allow for relevant information to be grouped to enhance querying. They are used to order the rows. ✓ 1 ✓
- ii). Transactions can contain sensitive data and ~~if~~ indexes and i would create indexes on a criterion of relevancy. For example an index on email to list all emails that are registered first. 1 ✓

11) Status ~~X~~ not suitable.

An index on Status will be able to order the ~~columns~~ rows based on their Status (e.g. Pending, Cancelled).

^(CLUSTERED)
CREATE INDEX idx-Status
ON Tutor (column)

0.5

~~Insert into Booked Lesson~~
~~(Student No, Subjectid, Tutorid)~~
~~(25, 100, 66)~~

missing 1 insert

Insert into Booked Lesson
(Bookingref, Student No, Subjectid, Tutorid)
(500, 25, 100, 66)

4

Insert into Booked Lesson
(LessonDate Time, DurationMins)
~~(30-May-2019 10:00, 120)~~

Q2-6.5

(30-May-2019 10:00, 120)

Question 3

- a. Sql injections can pose a great risk to sensitive data. Being open to injections could mean a hacker could pull information from the database without authorised access.

Unhashed passwords means hackers may get plaintext passwords from the database.



Another risk is publishing the database without a strong user and password.

ensure users have the correct privileges to the data. for example a user should not be able to view another user's sensitive data. Different to an admin user.

3.5

3 1/2

Question 3c

C. 1) ~~SELECT~~ * select
~~SELECT~~ "First Name", 'Surname', 'email',
'City'

FROM Tutor

WHERE Status = 'Active'

incorrect syntax /
missup joins
and columns

2.5

2 1/2

Q3 - 16

6