



UNIVERSITY
of
ABERTAY DUNDEE
modular examination answer book

moderated
twice

Registration Number 0904324

Module Code SA0351A
(in full as given on the examination paper)

Module Title Database
(in full as given on the examination paper)

Date December 10th

Course Information Technology

Year of Course (1, 2, etc.) 1

Overall Grade C12

To be completed by candidates	For examiners' use only
Question No. Attempted	
ERM	6
MAP	5 1/2
NORM	5
	<hr style="width: 50px; margin-left: auto; margin-right: 0;"/>
	16 1/2

Candidates Must:

- Fill in *all* the details required on the front of the examination answer book.
- Write their registration number on *all* continuation examination answer books, graph papers and worksheets used during examinations and ensure that all such additional examination books etc., are attached to the main examination answer books by means of a treasury tag.

Enter in box if a continuation answer book has been used
- Carry out *all* 'rough-work' calculations etc., within the answer books provided. (Work which candidates do not wish to be considered by the examiners should be clearly scored out with one diagonal line.)
- Leave on their desks at the conclusion of the examination all examination books, graph papers, worksheets etc. provided.
- Remain seated at their desks until permitted to leave by an invigilator.

Candidates Must Not:

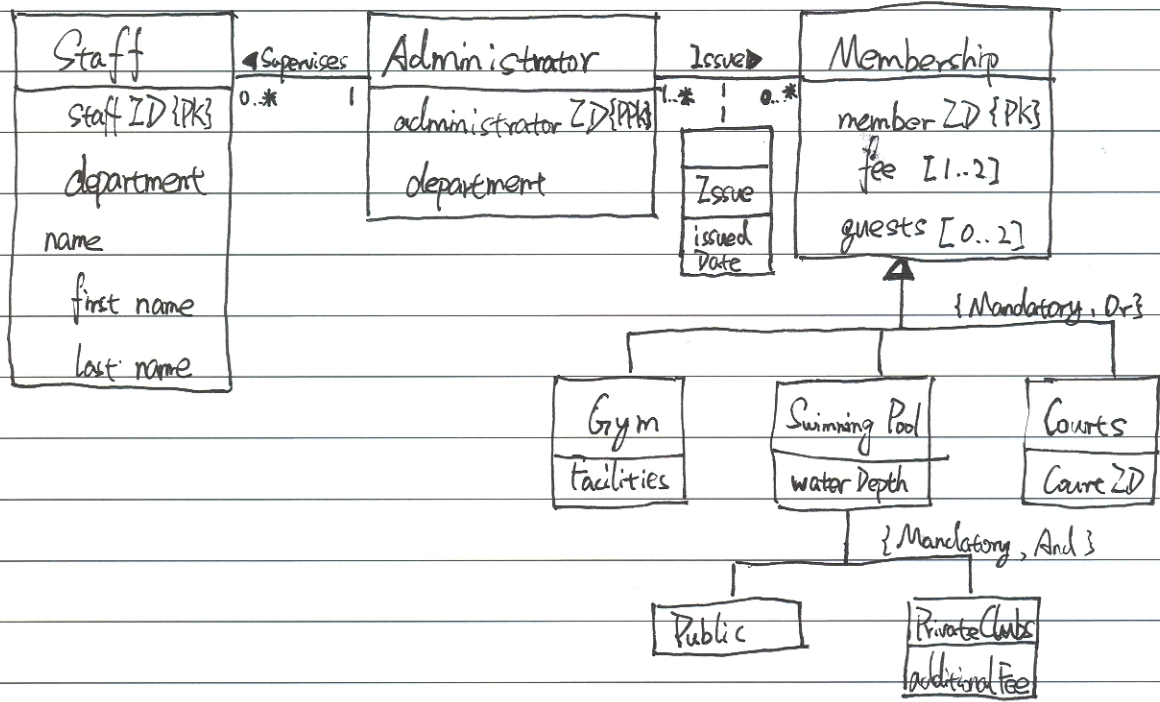
- Communicate in any way whatsoever with other candidates.
- Carry out 'rough-work' or calculations on any paper other than the examination answer books provided.
- Remove any part of the examination answer books provided.

Notes

- Read the instructions and questions carefully.
- Do not copy out questions: give the numbers only.
- Write, in ink, on both sides of the page.
- Begin each answer on a fresh page.

Part 1.

1.



1	1
2	1/2
3	1/2
4	0
5	1/2
6	1/2
7	1
8	1/2
9	1
10	1/2
	<hr/>
	6

2.

Step 1. Strong Entities:

Staff { Staff ID, department, first name, last name }

Membership { member ID, first name, last name, address }

Step 2. Weak Entities

Administrator { administrator ID, department, first name, last name }

Step 3. 1..* Relationships

Staff { Staff ID, department, first name, last name, administrator ID* }

Step 4 & 5. 1:1 relationships (none)

Step 6. Super / Subclass Relationships

Membership { member ID, first name, last name, department }

Gym { member ID*, facilities }

Swimming Pool { member ID*, water depth, p?, pc additional fee }

Courts { member ID*, course ID }

Step 7 & 8 *.* Relationships

Issue { administrator ID*, member ID*, issued date }

Step 9, multi-valued attribute

1	1
2	1/2
3	1/2
4	0
5	1/2
6	1/2
7	1
8	1/2
9	1
10	1/2
	<hr/>
	6

Fee { single annual payment, monthly payments, member ID* }

Guests { member ID*, first name, last name, enter time }

Final relations.

Staff { Staff ID, department, first name, last name, administrator ID* }

Membership { member ID, first name, last name, address }

Administrator { administrator ID, department, first name, last name }

Issue { administrator ID*, member ID*, issued date }

Gym { member ID*, facilities }

Swimming Pool { member ID*, water depth, p?, p? additional fee }

Courts { member ID*, court ID }

Fee { ~~single~~ single annual payment, monthly payments, member ID* }

Guests { member ID*, first name, last name, enter time }

1/2
+ 1/2
5/10

Parse 2.

1. Priority, CNum, Reg, DNum are PKs.

2. Condition { Priority*, Reg*, Status }

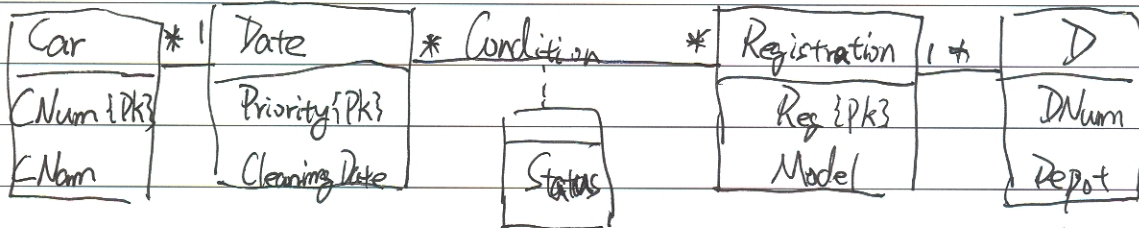
Date { Priority, Cleaning Date, CNum* }

Car { CNum, Priority*, CName }

Registration { Reg, Model, DNum* }

D { DNum, Reg*, Depot }

3.



1/2
1
1/2
1/2
1/2
1/2

5/10