

1. The Scottish Tennis Association stores details about players and clubs in a single table. Below is a record from this table.

|                       |                               |
|-----------------------|-------------------------------|
| <b>Name</b>           | Paul Notman                   |
| <b>Rating</b>         | 6.2                           |
| <b>Tennis club</b>    | Strathmore                    |
| <b>Club secretary</b> | Marta Barowska                |
| <b>Club address</b>   | 67 Greenfield Street, Falkirk |
| <b>Club telephone</b> | 01789 786532                  |

- (a) Describe **one** data modification problem with this database design. 2
4. State the most appropriate data type for the following descriptions:
- (a) the position of a switch (on or off); 1
- (b) photograph image (not embedded); 1
- (c) the number of people at a meeting. 1
9. State **two** requirements of the Data Protection Act 1998. 2
12. Carter's Carriage is a transport company which operates a fleet of vans carrying goods between 25 depots throughout the country. Every trip follows one of a number of set routes between an origin depot and a destination depot. Refuelling, if necessary on longer routes, is only permitted at a particular town on the route.
- A relational database has been created to help the company. The structure of the data model is as follows:
- | <b>Driver</b>        | <b>Trip</b>                 | <b>Van</b>                 | <b>Route</b>        |
|----------------------|-----------------------------|----------------------------|---------------------|
| <u>Driver number</u> | <u>Driver number*</u>       | <u>Registration number</u> | <u>Route number</u> |
| Driver name          | <u>Registration number*</u> | Capacity                   | Origin              |
| Mobile number        | <u>Date</u>                 | Date purchased             | Destination         |
|                      | Route number*               |                            | Refuel town         |
- (a) Draw an *entity relationship* diagram to represent this data model. 6

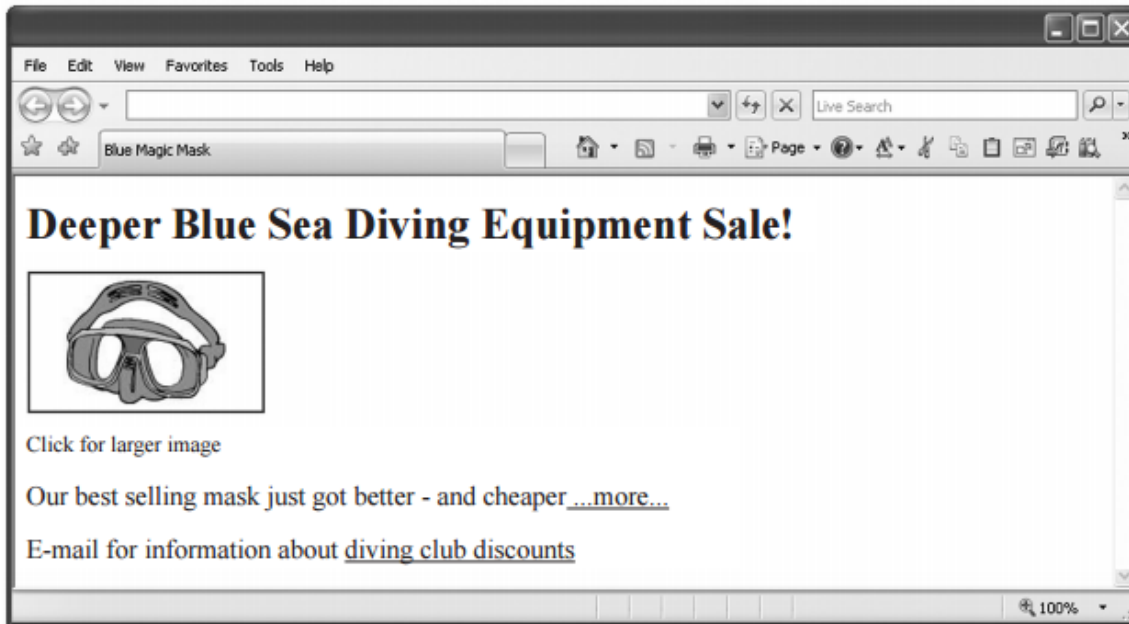
15. BestPals is a social networking website. Members can post comments and images on their own pages and on their friends' pages.



Members of BestPals can also send private messages to their friends.

- (b) Under three separate headings of *social*, *legal* and *ethical*, comment on the implications of using private messaging.

22. Deeper Blue Sea is a company selling diving equipment. Part of a page from the company's website is shown below.



Part of the HTML code used to produce this page is shown below.

- (a) State suitable entries for each of the missing values labelled A to D.

4

1. <head>
2. <title>Blue Magic Mask<   A   >
- 3.
- 4.
- 5.
6. <   B   >
7. <   C   >
8. <h1>Deeper Blue Sea Diving Equipment Sale!</h1>
9. <p> <a href="Images/bluemagiclarge.jpg"> </a></p>
10. <p class="style1">Click for larger image </p>
11. <p>Our best selling mask just got better - and cheaper<a href="#BMMask" >  
...more... </a></p>
12. <p>E-mail for information about <a  
href="mailto:discounts@deeperblue.com.uk">diving club discounts</a> </p>