

Name: _____

Grade: /

Structures and Links (Databases) - 2

Answer the questions below in the spaces provided.

1. The Community School of Blairinloch runs evening classes for adults. They keep student records as shown in the table below.

STUDENT TABLE

| Student Number | First Name | Surname | Gender | Occupation status | Course Code |
|----------------|------------|----------|--------|-------------------|-------------|
| 3891 | Duncan | Lindsay | M | Retired | A143 |
| 4124 | Margaret | James | F | Retired | A143 |
| 4269 | Megan | McDonald | F | Student | A143 |
| 6123 | Liam | Davies | M | Job Seeker | B876 |
| 7250 | Ross | Campbell | M | Full time | B876 |
| 6545 | Kerr | Marsh | M | Other | C129 |
| 2638 | Elizabeth | Johnston | F | Part time | C133 |

The college keep a separate table detailing courses.

COURSE TABLE

| Course Code | Course name | Start date | Day held | Time | Tutor | Venue |
|-------------|-------------|------------|-----------|-------|------------|-----------|
| C129 | Floral Art | 14 October | Tuesday | 17:30 | M Colman | Art 01 |
| B133 | Dressmaking | 22 October | Wednesday | 18:00 | G Brady | HE 03 |
| A143 | Gaelic | 15 October | Thursday | 18:00 | M Hodgeson | ML 02 |
| B876 | Yoga | 6 October | Monday | 19:00 | I Davidson | Main Hall |

- a) Describe how the list of students has been sorted. (2)

- b) The Student table above makes use of a *primary key* and *foreign key*. Explain what is meant by a “foreign key”. (2)

- c) (i) Identify the *foreign key* in the Student table. (1)

- (ii) Identify in either the Student table or the Course table a suitable *primary key*. (1)

- d) When entering in to the database a new student the course registrar can only select the occupation status from one of 6 options.

State the *validation* used in this situation (1)

- e) State **one** advantage of the college keeping their student and course data in two separate but *linked tables*. (1)

2. A school information system, shown below, is used to print out a list of absentees.

| Pupil Number | First Name | Surname | Class |
|--------------|------------|----------|-------|
| 034216 | Daniel | Beaton | 4D1 |
| 034123 | Adam | Douglas | 4C2 |
| 033892 | Jade | Sharpe | 4A2 |
| 037211 | Jack | Brown | 4D1 |
| 040083 | Jessica | Docherty | 4C1 |
| 035014 | Erin | Miller | 4D1 |
| 033337 | Reece | Hynd | 4A2 |
| 032996 | Liam | Gray | 4D1 |
| 040008 | Beth | Scott | 4D1 |

- a) The school administrator has been asked to produce a list showing just the pupils from Class 4D1, listed in alphabetical order of surname.

Describe how this could be done. (2)

- b) Explain why you would use a *field type* of text for the field Pupil Number. (2)
