VCE Computing: Informatics 2016–2019

Written examination – End of year

Entity-relationship (ER) conventions

Any relevant entity-relationship questions in the VCE Computing: Informatics examinations for the accreditation period 2016–2019 will use the following definitions and symbols.

Basic definitions and symbols

| Term | Chen notation | Crow’s foot notation |
| --- | --- | --- |
| **Entity** – Something about which data is collected, stored and maintained  Technically, an **entity** is a single example of an **entity type** or **entity set**. For example, Ford Falcon Reg. No. QAZ123 is an entity of entity type Car. | *Entity* | *Entity*  OR  *Entity* |
| **Attribute** – A characteristic or property of an entity  An attribute has a **value**. A value can be **null**.  Note: ‘Foreign keys’ are not shown in an ER diagram. | OR  *Attribute* | *Entity*  *Attribute 1 (, data type)*  *Attribute 2 (, data type)*  etc.  data type optional |
| **Key attribute(s)** – One (or more) attributes that uniquely identify the entity | OR  *Attribute* | *Entity*  *\* Attribute 1 (, data type)*  *Attribute 2 (, data type)*  etc. |
| **Relationship** – An association between entities | *Relationship* | *Relationship* |
| **Cardinality** – The number of entities to which another entity can be associated through a relationship  The diagrams on the right show, in order:  one-to-one  one-to-many  many-to-one  many-to-many | 1  1  1  M  M  1  M  N | *Relationship*  *Relationship*  *Relationship*  *Relationship* |

Examples illustrating the use of each notation

Chen notation – high-level entities only



Chen notation – detailed



Crow’s foot notation – detailed, including data type

