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 maintainedTechnically, 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 entityAn 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 relationshipThe diagrams on the right show, in order:one-to-oneone-to-manymany-to-onemany-to-many | 111MM1MN | *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

