

Q4. (b) Briefly explain **TWO (2)** important duties of a database administrator. (4 marks)

Q4. (b) Data administration is a high-level function that is responsible for the overall management of data resources in an organisation.

Briefly discuss any **TWO (2)** data administration functions. (4 marks)

- Q3. (a) (i) Define the term '**database administration**'. (2 marks)
- (ii) Briefly describe any **TWO (2)** basic database recovery facilities. (4 marks)

- Q3. (a) (i) The goal of database security is to protect data from accidental or intentional treats to their integrity and access. Describe with relevant example the difference between *authentication* and *authorization*. (4 marks)
- (ii) It is the responsibility of a database administrator to ensure that all critical data in a database are protected and can be recovered in the event of loss. Identify any **TWO (2) basic recovery facilities** and describe how they can be used to recover a database. (6 marks)