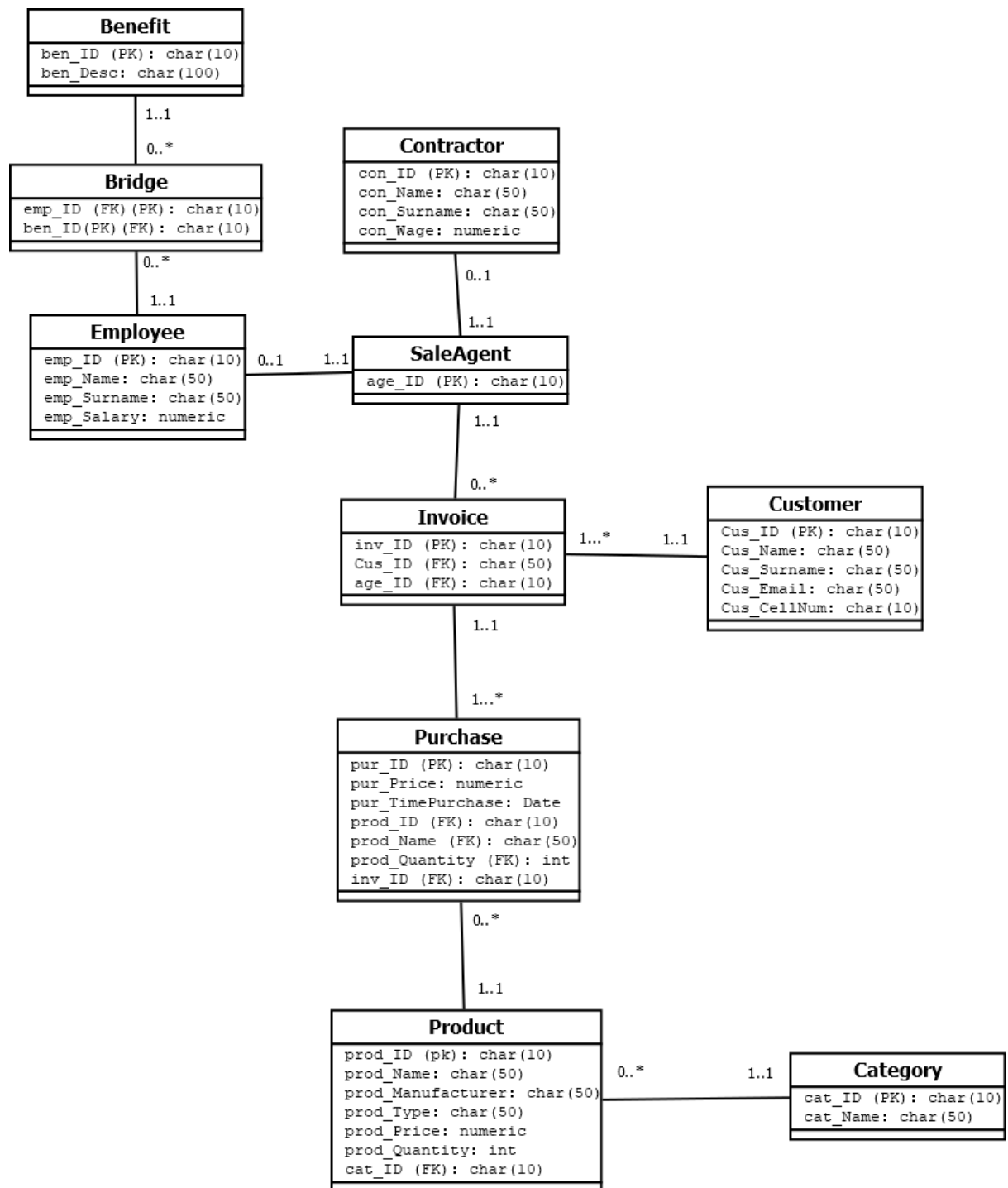


Q1)



Q2

a) First Normal Form

b) There are partial dependencies ie price depends on product_code, but not invoice ID

c) Updating INV-1-6 record can result in losing product code information (T-456).

updating INV-103 record can result in losing CUST-ID info (444)

d)

INVOICE-ID → PRODUCT-CODE, CUST-ID, QUANTITY, DATE

CUST-ID →

PRODUCT-Code → PRODUCT-NAME, PRICE

INTO:

Invoice(INVOICE-ID, CUSTOMER-ID)

line(LINE-ID, PRODUCT-CODE, INVOICE-ID, QUANTITY)

Customer(CUSTOMER-ID, CUSTOMER-NAME)

Product(PRODUCT-CODE, PRODUCT-NAME, PRICE)

Q3

a) Second Normal form

b) There are no partial dependencies, but there are transitive dependencies (ie postal code depends on city)

c) An update to Cust-ID 3890 record can result in losing all city on PRETORIA

An update to Cust-ID 3890 record can result in losing all postal code info 4000

d)

Customer(Cust-ID, Surname, FirstName, Email, CellNo, Add_ID)

Address(Add_ID, City_Name, StreetAddress)

City(City_Name, PostalCode)

Q4

x(X, I)

y(Y)

xy(X, Y, H, J, K)

