



SULIT

**UNIVERSITI TEKNIKAL MALAYSIA MELAKA**  
**PEPERIKSAAN AKHIR SEMESTER II**  
**FINAL EXAMINATION SEMESTER II**  
**SESI 2020/2021**  
**SESSION 2020/2021**

**FAKULTI TEKNOLOGI MAKLUMAT DAN KOMUNIKASI**

**KOD KURSUS** : **BITP 1323**  
**COURSE CODE**

**KURSUS** : **PANGKALAN DATA**  
**COURSE** **DATABASE**

**NAMA PENSYARAH** : \_\_\_\_\_  
**LECTURER'S NAME**

**PROGRAM** : **BITM/ BITD/ BITC/ BITE/ BITS/ BITZ/ BITI**  
**PROGRAMME**

**NAMA PELAJAR** : \_\_\_\_\_  
**STUDENT'S NAME**

**NOMBOR MATRIK** : 

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**MATRIC NO.**

**BAHAGIAN B (KAJIAN KES)**  
**PART B (CASE STUDY)**

**ARAHAN KEPADA CALON**  
**INSTRUCTIONS TO CANDIDATES**

- 1. Kertas soalan ini mengandungi soalan Bahagian B. Jawab SEMUA soalan dari bahagian ini pada ruangan yang disediakan.**  
*1. This question paper consists Part B questions. Answer ALL questions from this part in the space provided.*

**BAHAGIAN INI TERDIRI DARIPADA ( 7 ) MUKA SURAT SAHAJA TERMASUK MUKA SURAT HADAPAN**  
**THIS PART CONTAINS ( 7 ) PAGES INCLUSIVE OF FRONT PAGE**

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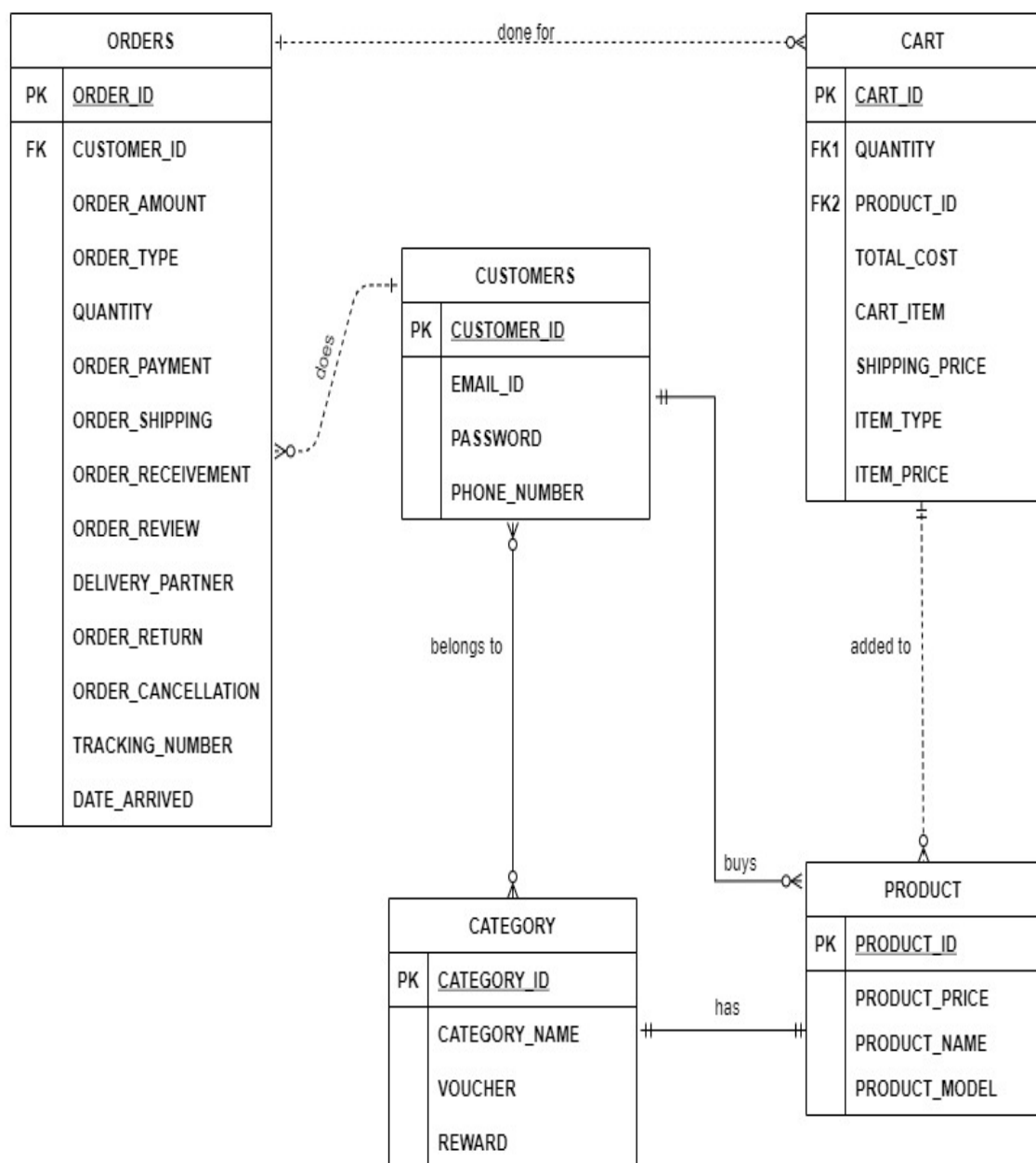
**BAHAGIAN B: SOALAN KAJIAN KES (35 MARKAH)*****PART B: CASE STUDY QUESTION (35 MARKS)*****ARAHAN/ INSTRUCTION:**

Jawab SEMUA soalan /*Answer ALL questions.*

**SOALAN 1 (20 MARKAH)/ QUESTION 1 (20 MARKS)**

a) Gambar Rajah Hubungan Entiti (ERD) berikut diberikan:

*The following Entity Relationship Diagram (ERD) is given:*



Kenal pasti dan senaraikan **SEPULUH (10)** kesalahan atau maklumat yang hilang berdasarkan ERD yang ditunjukkan dalam gambar rajah di atas.

*Identify and list **TEN (10)** mistakes or missing information based on the ERD displayed in the figure above.*

Ruangan jawapan untuk soalan 1a/ *Answer space for question 1a:*

- 1- Product table does not have Customer\_ID foreign key
- 2- Cart table does not have Order\_ID foreign key
- 3- Category table and Product table one on one relationship is not valid
- 4- Customers table and Category table many to many relationship is not valid, must have bridge
- 5- Customers table and Category table is not a strong relationship
- 6- Customers table and Product table is not a strong relationship
- 7- Category table and Product table is not a strong relationship

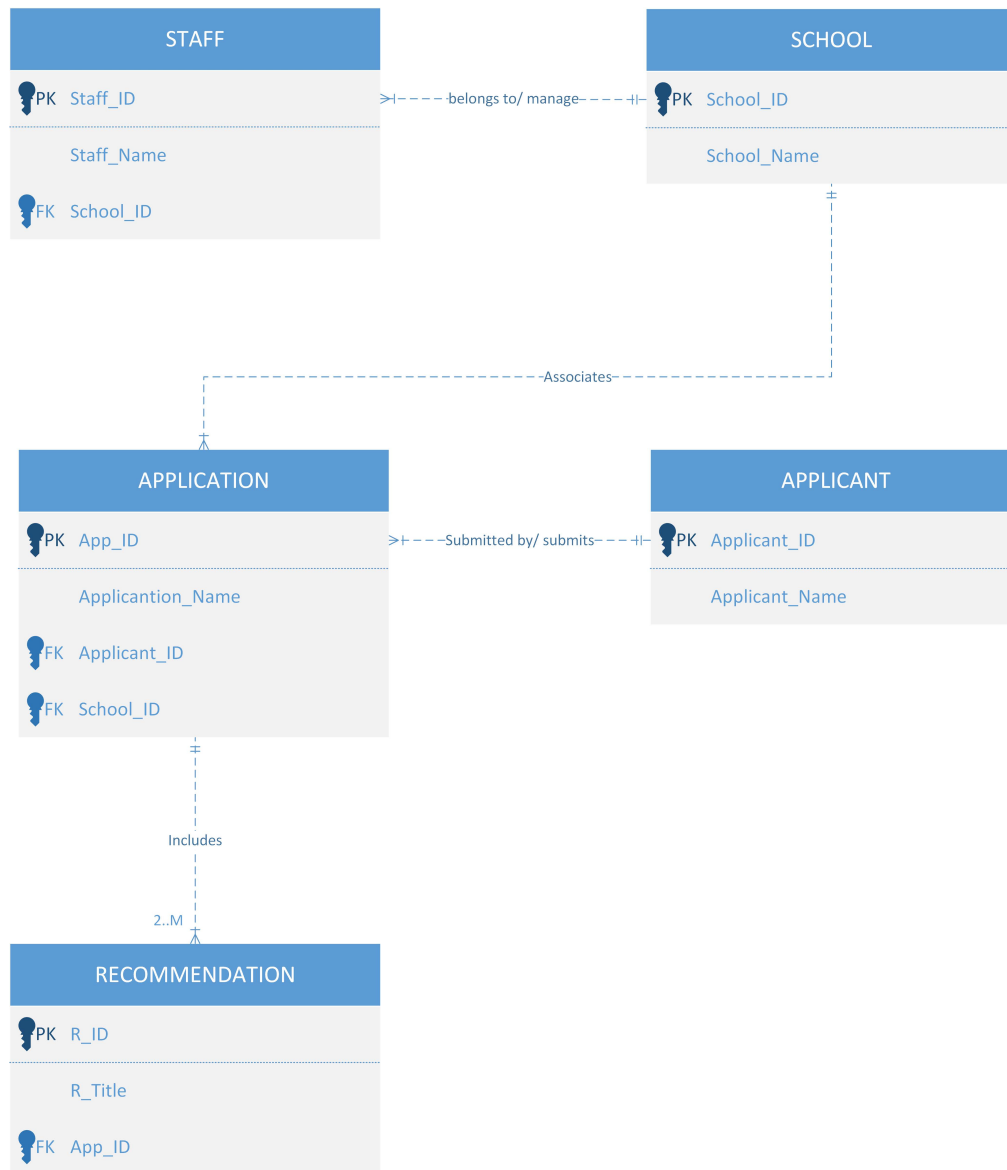
(10 markah/ marks)

- b) Bina satu **ERD** yang lengkap berdasarkan peraturan perniagaan di bawah. Pastikan ERD anda merangkumi semua entiti yang berkaitan, atribut (atribut kunci utama, atribut kunci asing, atribut bukan kunci), garis hubungan, nama hubungan yang sesuai, penyambungan, penyertaan (wajib, pilihan) dan kardinaliti (jika ada).

*Construct a complete **ERD** based on the business rules below. Make sure your ERD includes all the related entities, attributes (primary key attributes, foreign key attributes, non-key attributes), relationship lines, suitable relationship names, connectivity, participation (mandatory, optional) and cardinality (if any).*

- Setiap staf mesti tergolong dalam satu dan hanya satu sekolah sahaja. Setiap sekolah mesti menguruskan satu atau lebih staf./ *Each staff must belong to one and only one school. Each school must manage one or more staff.*
- Setiap pemohon boleh mengemukakan satu atau lebih permohonan. Setiap permohonan mesti dikemukakan oleh satu dan hanya seorang pemohon./ *Each applicant can submit one or more applications. Each application must be submitted by one and only one applicant.*
- Setiap sekolah boleh dikaitkan dengan satu atau lebih permohonan. Setiap permohonan mesti dikaitkan dengan satu dan hanya satu sekolah sahaja./ *Each school can be associated with one or more applications. Each application must be associated with one and only one school.*
- Setiap permohonan mesti mengandungi dua atau lebih cadangan. Setiap cadangan disertakan dengan satu dan hanya satu permohonan./ *Each application must include two or more recommendations. Each recommendation is included with one and only one application.*

Ruangan jawapan bagi soalan 1b/ *Answer space for question 1b:*  
Lukis ERD anda disini/ *Draw your ERD here.*



(10 markah/ marks)

**SOALAN 2 (15 MARKAH)/ *QUESTION 2 (15 MARKS)***

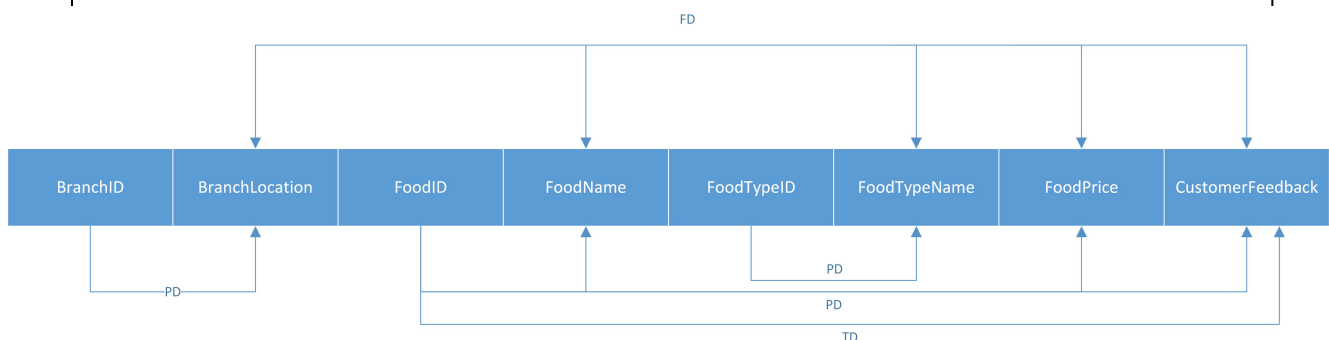
Jadual berikut diberikan:

*The following table is given:*

BranchID	Branch Location	FoodID	FoodName	FoodType ID	FoodType Name	FoodPrice (RM)	Customer Feedback
B1	Merlimau	F01	Tom Yam Fried Rice	T01	Thai	15.00	Superb
		F09	Classic Pizza	T03	Western	20.00	delicious
B2	Jitra	F01	Tom Yam Fried Rice	T01	Thai	15.00	Delicious
		F03	Cheese Burger	T03	Western	23.00	lovely food
		F09	Classic Pizza	T03	Western	20.00	Nicely cooked
B3	Kuala Pilah	F02	Pandan Cake	T09	Desserts	9.99	“Just to say “thank you” for our meal last Saturday. We all enjoyed your delicious food

- a) Bina rajah kebergantungan **Bentuk Normal Pertama (1NF)** yang lengkap./ *Construct the complete First Normal Form (1NF) dependency diagram.*

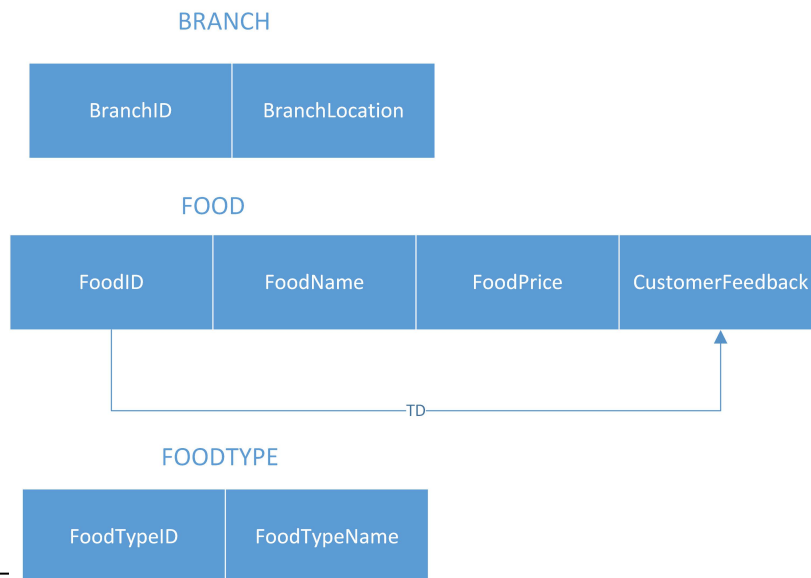
Ruangan jawapan untuk soalan 2a/ *Answer space for question 2a:*



(6 markah/ *marks*)

- b) Bina rajah kebergantungan Bentuk Normal Kedua (2NF) yang lengkap./ *Construct the complete Second Normal Form (2NF) dependency diagrams.*

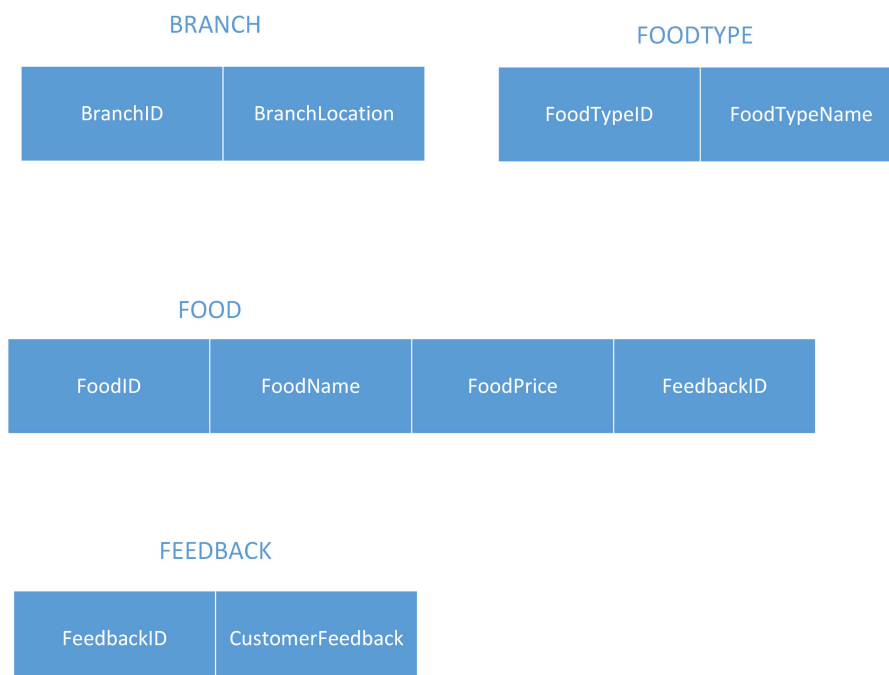
Ruangan jawapan untuk soalan 2b/ Answer space for question 2b:



(4 markah/ marks)

- c) Bina rajah kebergantungan **Bentuk Normal Ketiga (3NF)** yang lengkap./ *Construct the complete Third Normal Form (3NF) dependency diagrams.*

Ruangan jawapan untuk soalan 2c/ Answer space for question 2c:



(5 markah/ marks)

**- SOALAN TAMAT/ END OF QUESTIONS -**