

Part C [10 points]

The following schemas describe relations in the sample database in CS:I.

- A) Movie (MovieId:key, Title, Genre, Rating)
- B) Customer (CustomerId:key, Name, Address, CreditCardNumber)
- C) Rents (CustomerId, MovieId, DateRented, DateDue)
- D) NEW \leftarrow SELECT from MOVIE where RATING = "PG"
- E) PGmovies \leftarrow PROJECT MovieId, Title from NEW
- F) TEMP1 \leftarrow JOIN CUSTOMER and RENTS
 where CUSTOMER.CustomerId = RENTS.CustomerId
- G) RENTALS \leftarrow PROJECT Name, Address, MovieId from TEMP1
- H) TEMP2 \leftarrow JOIN RENTALS and PGmovies
 where RENTALS.MovieId = PGmovies.MovieId
- I) PGrenters \leftarrow PROJECT Name, Address, Title from TEMP2

For each relation below, select its schema from the list above.

_____ A			
MovieId	Title	Genre	Rating
101	Sixth Sense, The	thriller, horror	PG-13
102	Back to the Future	comedy adventure	PG
1033	Monsters, Inc.	animation, comedy	G
104	Field of Dreams	fantasy drama	PG
105	Alien	sci-fi horror	
107	X-Men	action, sci-fi	PG-13
...			
7442	Platoon	action drama war	R

_____ I		
Name	Address	Title
Dennis Cook	789 Main	Back to the Future
Dennis Cook	789 Main	Field of Dreams
Randy Wolf	12 Elm	Field of Dreams
Randy Wolf	12 Elm	Back to the Future

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_____ E	
MovieId	Title
102	Back to the Future
104	Field of Dreams

Select one of the following terms to complete each of the following statements.

A) attribute	B) cardinality constraint
C) database	D) database engine
E) database management system	F) database model
G) Entity-relationship modelling	H) ER diagram
I) Join	J) key
K) physical database	L) Project
M) query	N) relation
O) relational model	P) schema
Q) Select	R) SQL
S) subschema	T) tuple

Place the appropriate **LETTER** in the blank.

- 1) Relational databases are examples of a(n) _____. F
- 2) A table is also called a(n) _____. N
- 3) _____ is a database operation to extract tuples from a relation. Q
- 4) A request to retrieve data from a database _____. M
- 5) _____ is a description of the entire database structure used by the database software to maintain the database. P
- 6) _____ is a collection of files that contain the data. K
- 7) A(n) _____ is one or more fields of a record that uniquely identifies it. J