

(Analysis test bank)

Final :

Q1: List six Elements of Project Planning

Q2: Context DFD Designing Draw the context DFD for the below system.

The auction house has selling customers, who want to put up an item for sale, and buying customers, who buy an item at an auction. Selling customers ask the auction house to sell an item on their behalf. The auction house decides whether to accept the request and maintains a record for all accepted requests. Buying customers register with the auction house and participate in auctions. Auctions are conducted by giving buying customers information about an item, then taking bids. The auction determines a buying customer for each item put up for sale. The sale is completed when the buying customer pays for the item. The auction house sends a portion of the sale income to the selling customer who put up the item for sale in the first place. Of course, the auction house keeps track of all auctions (which are conducted every few weeks) and all sales at each auction.

Q3: For all the parts to this problem, let the annual discount rate be 5

a) Find the present value of the following cash flow: receive \$10 every year for 30 years with the first payment being 10 years from now

b) Find the present value of the following cash flow: receive \$10m now and the same amount a year from today and pay \$3m a year forever with the first payment being a year from today.

c) Consider the following two cash flows.

For cash flow A. you receive \$10 every year for 5 years with the first payment being today

For cash flow B. you receive x dollars every year forever with the first payment being today.

What is the value of x in order for cash flow B to have the same present value as cash flow A?

Q4: ER Diagram Designing

Draw an Entity-Relationship diagram that is associated with the below public library system.

The public library holds information on:

- Books, videos and CDs available for borrowing:
- Every item (book, video, CD) has a unique collection #, a title, and an ISBN which is unique for every publication; every item may be in good order or damaged (see below) note that if there are 10 copies of a single book, they have distinct collection #s, but identical ISBN#s;
- Books can be in Arabic, or another language; in either case, the database stores the language the book is written in;
- Books have a publisher and one or more authors, CDs and videos have a unique producer. and one or more artists.

In addition, the database maintains data on library users and their borrowed material:

- Each user has a unique userID, address, phone#; users can be adults, children or seniors:

seniors can borrow material for longer periods, while children pay a nominal fine of ID

0.05/day for un-returned material:

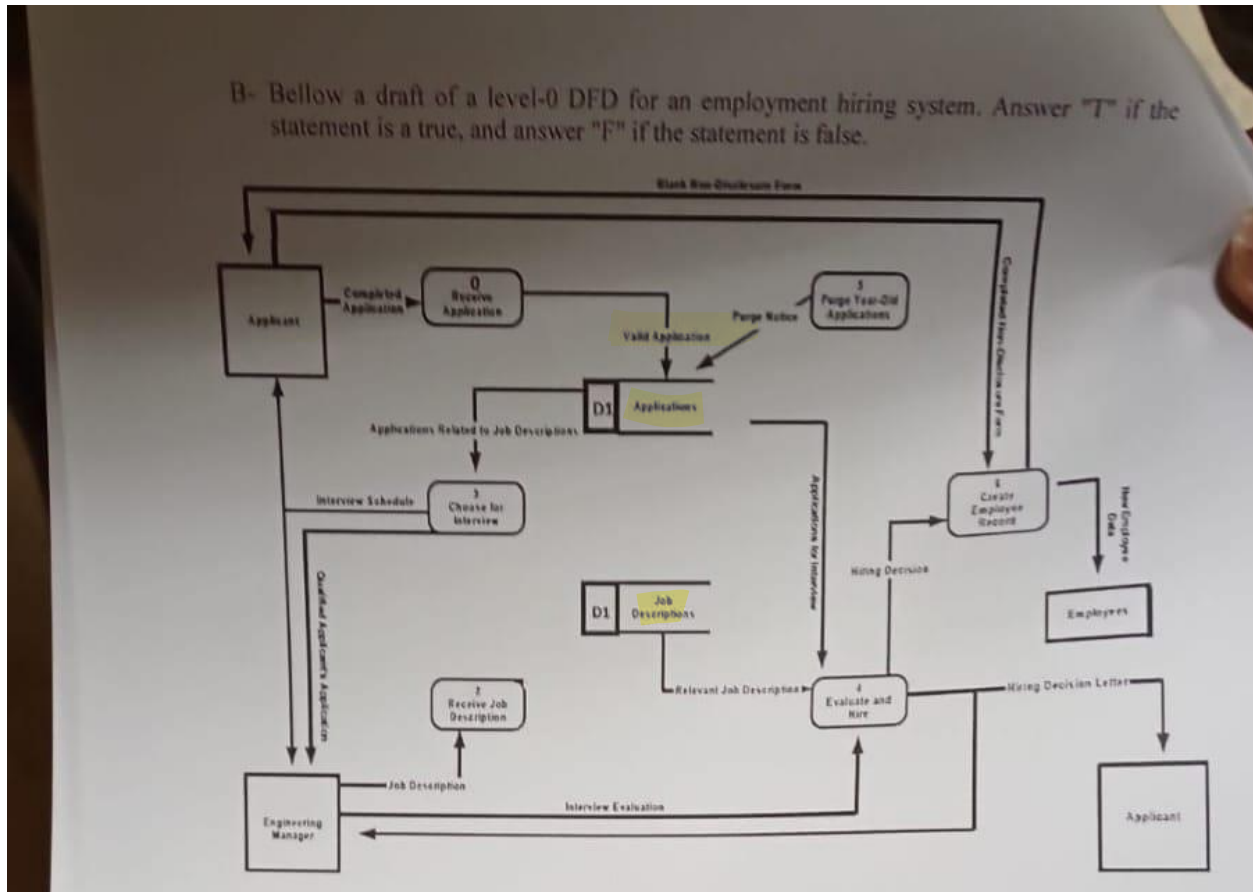
- When a user selects an item to be borrowed, the library clerk updates the database, recording userID, collections, and date of borrowing:
- When a user returns an item, the library clerk updates the database, recording the date when the item was returned: if the item is overdue, the clerk also collects a fine calculated as DaysLate.

Q5:

Problem 7: Decision Table Analyzing (3 Points)
Simplify the below decision table. Note that the values *T* and *F* represent the Boolean values *True* and *False* respectively.

		1	2	3	4	5	6	7	8
Condition Stubs	A	T	T	T	T	F	F	F	F
	B	T	T	F	F	T	T	F	F
	C	T	F	T	F	T	F	T	F
Action Stubs	Action1	X	X						
	Action2			X					
	Action3				X		X		X
	Action4					X		X	

Q6:



7. There is no violation in the process Create Employer Record. ()

+

8. The data flow Interview Schechile is valid data flow

F

9. The two data stores Applications and Job Description can't have same ID (10-From this level-0 diagram, we could generate ? level-1 DFDs()

T

11-The data flow Valid Application means update. ()

T

12- The entity Engineering Manager can't be source and sink simultaneously. () .()

F

- The external entity Applicant can't appear twice in the DFD 13 14- The dataflow Hiring Decision Letter is invalid dataflow. ()

F

15- There is no violation in the process Receive Job Description. ()

F

16- There is no violation in the process Receive Application. ()

T

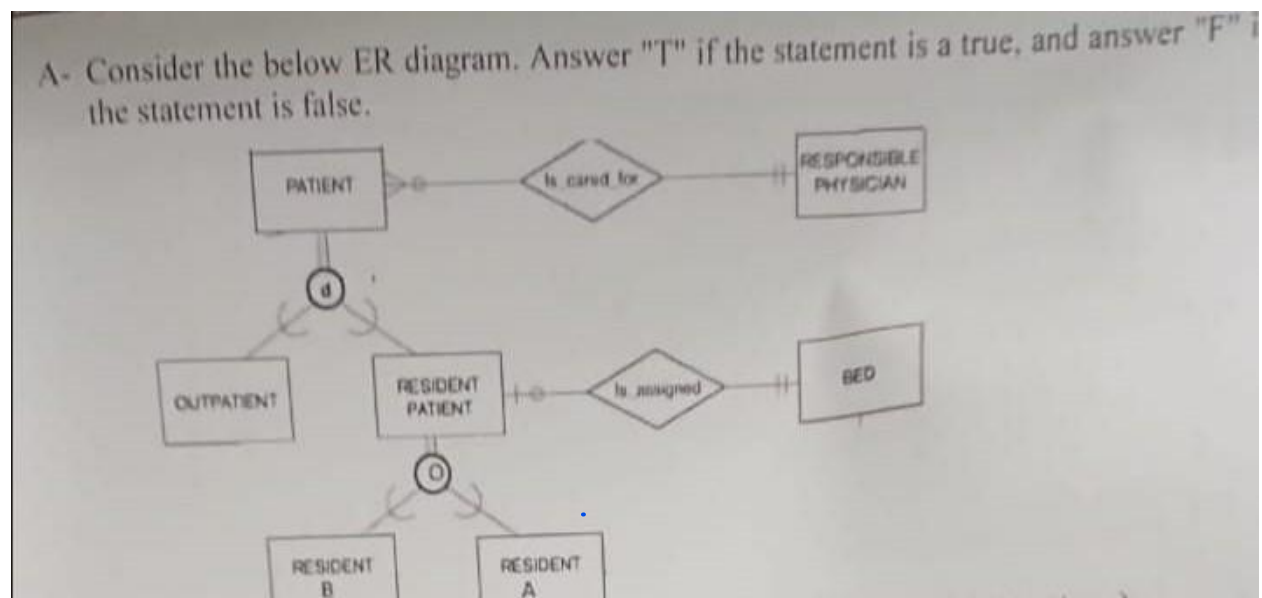
17- There is no violation in the process Purge Year-Old Application. ()

F

18-The data store Applications can't receive inputs from two different processes ().

F

Q7:



1- At any time a PATIENT cannot be an OUTPATIENT and RESIDENTA. ()

~~T~~

2. RESIDENTA is cared for only one RESPONSIBLE PHYSICIAN ()

T

3- A RESIDENT PATIENT can be both RESIDENTA and RESIDENT B ()

T

4. RESIDENTA and OUTPATIENT could be cared by the same RESPONSIBLE PHYSICIAN. ()

T

5- A BED could be served by many RESPONSIBLE PHYSICIANS. ()

T

6- A BED could be assigned to at most one PATIENT. ()



Q8:

Match each of the key terms above with the definition that best fits.

- 11 ___ The process of evaluating how key stakeholders within the organization view the proposed system.
- 13 ___ A document prepared for the customer that describes what the project will deliver and outlines generally at a high level all work required to complete the project.
- 3 ___ The justification for an information system, presented in terms of the tangible and intangible economic benefits and costs, and the technical and organizational feasibility of the proposed system.
- 5 ___ A process of identifying the financial benefits and costs associated with a development project.
- 10 ___ The process of assessing the degree to which a proposed system solves business problems or takes advantage of business opportunities.
- 14 ___ A cost resulting from the ongoing evolution and use of a system.
- 23 ___ A detailed model that captures the overall structure of organizational data and that is independent of any database management system or other implementation considerations.
- 26 ___ A detailed, logical representation of the entities, associations, and data elements for an organization or business area.
- 30 ___ An attribute that may take on more than one value for each entity instance.
- 22 ___ The number of instances of entity B that can (or must) be associated with each instance of entity A.
- 37 ___ A subgrouping of the entities in an entity type that is meaningful to the organization.
- 38 ___ A generic entity type that has a relationship with one or more subtypes.
- 39 ___ Specifies that each entity instance of the supertype must be a member of some subtype in the relationship.
- 33 ___ Specifies that an entity instance of the supertype does not have to belong to any subtype.
- 43 ___ The set of all data types and values that an attribute can assume.
- 40 ___ An assertion or rule that governs the validity of data manipulation operations such as insert, update, and delete.
- 36 ___ An attribute that must have a value for every entity instance.
- 31 ___ An attribute that may not have a value for every entity instance.
- 42 ___ An attribute that has meaningful component parts.
- 25 ___ An attribute whose value can be computed from related attribute values.

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Key Terms

1 Baseline Project Plan (BPP) 2 Break-even analysis ~~3 Business case~~ 4 Discount rate

~~5 Economic feasibilities~~ 6 Intangible benefit 7 Intangible cost 8 Legal and contractual feasibility

9 One-time cost 10 Operational feasibility ~~11 Political feasibility~~ 12 Present value

~~13 Project Scope Statement (PSS)~~ ~~14 Recurring cost~~ 15 Schedule feasibility

16 Total cost of ownership (TCO) 17 Tangible benefit 18 Tangible cost 19 Technical feasibility

20 Time value of money (TVM) 21 Total cost of ownership (TCO) ~~22 Cardinality~~

~~23 Conceptual data model~~ 24 Degree ~~25 Derived attribute~~

~~26 Entity-relationship data model (E-R model)~~ 27 Entity-relationship diagram (E-R diagram)

28 Entity type 29 Identifier 30 Multivalued attribute ~~31 Optional attribute~~ 32 Overlap rule

~~33 Partial specialization~~ rule 34 Relationship 35 Repeating group ~~36 Required attribute~~

~~37 Subtype~~ ~~38 Supertype~~ ~~39 Total specialization~~ rule ~~40 Triggering operation(trigger)~~ 1 Unary relationship ~~42 composite attribute~~ ~~43. Domain~~ 44. none of above.

Good luck

Prepared by the student :Mumen mamon odetallah

ETIHAD الاتحاد