#### 6.1 Structured English is used to describe

- a. how programs are to be written
- b. processes in a DFD in a reasonably precise manner
- c. how DFDs are used in data processing
- d. data flows in DFD

#### 6.2 Structured English is a

- a. structured programming language
- b. description of processes in simple English
- c. method of describing computational procedures reasonably precisely in English
- d. natural language based algorithmic language

#### 6.3 The objective of using structured English is to

- a. describe computational procedures reasonably precisely which can be understood by any user
- b. expand a DFD so that a user can understand it
- c. develop algorithms corresponding to processes in a DFD
- d. ease writing programs for DFDs

#### 6.4 Structured English description of processes

- (i) should be understandable to a user of a computer based system
- (ii) should be understandable to a programmer
- (iii) can be descriptive in nature
- (iv) should be translatable by a compiler
- a. i and iii
- b. ii and iv
- c. i, ii and iv
- d. i and ii

#### 6.5 A decision table is

- a. a truth table
- b. a table which facilitates taking decisions
- c. a table listing conditions and actions to be taken based on the testing of conditions

d. a table in a Decision Support System

#### 6.6 A decision table

- a. has a structured English equivalent representation
- b. cannot be represented using structured English
- c. does not have an equivalent algorithmic representation
- d. cannot be used to represent processes in a DFD

#### 6.7 A decision table is preferable when the number of

- a. conditions to be checked in a procedure is small
- b. conditions to be checked in a procedure is large
- c. actions to be carried out are large
- d. actions to be carried out are small

### 6.8 Select from the following list which are appropriate to use in structured

English	description	of	a	process					
	(i)process inventory records								
	(ii)find the sum of outstanding billed amounts								
	(iii)check if outstanding amou	unt >= Rs. 5	5000						
	(iv)check if stock is low								
	vd ii								

- a. i and ii
- b. i and iii
- c. iii and iv
- d. ii and iii

#### 6.9 Structured English statements must be

- a. short and clear
- b. specified quantitatively
- c. specified qualitatively
- d. detailed and descriptive

# 6.10 Select statements from the following list which may be used in structured English

(i)if marks are too low fail student

(ii)if marks >=60 enter first class

(iii)if average height select candidate

#### (iv)if weight < 40 kg. reject candidate

- a. i and ii
- b. ii and iii
- c. iii and iv
- d. ii and iv

6.11 Select	correct	decision	structures	from	the	following
-------------	---------	----------	------------	------	-----	-----------

#### (i)**if** total marks>=75

then enter distinction in student record

#### end if

(ii) **if** total marks >=50

then enter pass in student record

else enter fail in student record

#### end if

(iii) if total marks >=60

then enter first class in student record

else if total marks>= 50

then enter second class in student record

else

enter fail in student record

#### end if

#### end if

(iv) **if** attendance <30%

#### then

do not admit in examination

#### else

- a. ii and iii
- b. i and ii
- c. iii and iv
- d. i and iv

#### 6.12 The following structured English procedure is incorrect because

**if** balance in account <=0 then {issue exception note to dept. mark "stop future issues" in departments record} else if balance in account <minimum balance then { issue item to dept. issue warning to dept.} end if end if a. end if in second if is not needed b. nesting of ifs is not correct no action is specified when balance in account >=minimum balance d. the value of minimum balance is not specified following structural English is incorrect case (income slab) tax= 10% Income slab =1: Income slab =2 or 3: tax = 20%Income slab =5: tax= 30% end case

- a. no action is specified for income slab of 4
- b. income slab has to be rupees
- c. income slab =2 or 3 is wrong
- d. number of cases is too small

c.

6.13 The

because

#### 6.14 The following structured English procedure is incorrect because

case (code) Code=2 : if purchase amount >=5000 then discount=5% Code=1 :discount=2% Code=3 :if purchase amount >=4000 then discount =2% else if code=4 then discount =5% end if None of the above codes : discount=0 end case

- a. code=2 should appear after code=1
- b. if statement cannot be used within a case
- c. code=4 should not be used in the action for code=3
- d. The statement is correct

6.15	The	following	while	structure	is	wrong	because
------	-----	-----------	-------	-----------	----	-------	---------

balance =500

**while** balance <=1000 do

Write (amount due – balance)

Read next record

#### end while

- a. read must appear before write
- b. this loop will never terminate
- c. no read allowed in a loop
- d. the contents of next record is not known

#### 6.16 Structured English description of data processing is a

- a. non-procedural specification
- b. procedural specification

- c. purely descriptive specification
- d. very imprecise specification

#### 6.17 Decision table description of data processing is

- a. non-procedural specification
- b. procedural specification
- c. purely descriptive specification
- d. very imprecise specification

# 6.18 In the following word statement the conditions are:"if a student gets 50 marks or more in mathematics and 40 marks or more in English he passes the examination, otherwise he fails"

- a. student passes the examination
- b. student fails the examination
- c. student gets 50 marks or more in mathematics
- d. student mathematics marks  $\geq 50$  and student English marks

# 6.19 In the following word statement the actions are"if a student gets 50 marks or more in mathematics and 40 marks or more in English he passes the examination, otherwise he fails"

(i)student passes the examination

(ii)student fails the examination

(iii)student gets 50 marks or more in mathematics

(iv)student mathematics marks  $\geq 50$  and student English

marks >= 40

- a. i and ii
- b. i and iii
- c. ii and iii
- d. iii and iv

#### 6.20 In a limited entry decision table the condition stub

- a. lists X or corresponding to actions to be executed
- b. lists the conditions to be tested
- c. has Y or N or entries
- d. lists the actions to be taken

#### 6.21 In a limited entry decision table the condition entries

- a. list X or corresponding to actions to be executed
- b. list the conditions to be tested
- c. have Y or N or entries
- d. list the actions to be taken

#### 6.22 In a limited entry decision table the action stub

- a. lists X or corresponding to actions to be executed
- b. lists the conditions to be tested
- c. has Y or N or entries
- d. lists the actions to be taken

#### 6.23 In a limited entry decision table the action entries

- a. list X or corresponding to actions to be executed
- b. list the conditions to be tested
- c. have Y or N or entries
- d. list the actions to be taken

#### 6.24 In a limited entry decision table the condition entries may be

- a. Y or N only
- b. Y, N or –
- c. A binary digit
- d. Any integer

# 6.25 In a limited entry decision table a—entry against a condition signifies that

- a. the outcome of testing the condition is irrelevant
- b. it is an important condition
- c. the condition should be tested
- d. the condition is a Boolean condition

#### 6.26 A rule in a limited entry decision table is a

- a. row of the table consisting of condition entries
- b. row of the table consisting of action entries
- c. column of the table consisting of condition entries and the corresponding action entries

d. columns of the tables consisting of conditions of the stub

#### 6.27 The conditions in the condition stub of a limited entry decision table

- a. must be in sequential order
- b. must be in the order in which they are to be tested
- c. may be in any order
- d. must be in the order in which they are to be executed

#### 6.28 The actions in the action stub of a limited entry decision table

- a. must be in sequential order
- b. must be in the order in which they are to be tested
- c. may be in any order
- d. must be in the order in which they are to be executed

#### 6.29 A X against an action in an action row signifies that the

- a. action is not to be taken
- b. action is to be taken
- c. action is important
- d. action is not important

#### 6.30 A—against an action in an action row signifies that the

- a. action is not to be taken
- b. action is to be taken
- c. action is important
- d. action is not important

#### 6.31 An extended entry decision table has

- a. only Y, N or entries
- b. entries which extend the condition
- c. questions asked extended into the condition entry part of the table
- d. only numerical entries

#### 6.32 An extended entry decision table

- a. has no limited entry equivalent
- b. cannot be replaced by a table with only Y, or entries
- c. may have Yes, No answers to conditions
- d. can always be converted to an equivalent limited entry decision tabl

#### 6.33 An extended entry decision table is

- a. very difficult to understand
- b. quite concise compared to a limited entry decision table developed for the same task
- c. large compared to a limited entry table developed for the same task
- d. is not very often used

#### 6.34 A mixed entry decision table

- a. may have some conditions with Y, N, or entries
- b. may not have any Y, N, or entry
- c. may have only non-numerical entries
- d. may mix numerical and non-numerical entries

#### Given a decision table "test" shown below

	<b>R</b> 1	R2	R3	
C1	Y	Ν	Y	
C1 C2	Ν	_	Y	
A1 A2	Х			Decision table-"test"
A2	I 	Х	_	
A3	Х	_	Х	

#### Answer the following questions:

#### 6.35 Rule R1 is interpreted as follows:

- a. If C1 is TRUE and C2 is FALSE then perform action A2
- b. If C1 is TRUE and C2 is FALSE then perform action A1 and then action A2
- c. If C1 is TRUE and C2 is FALSE then perform action A3 and then action A1
- d. If C1 is TRUE and C2 is FALSE then perform action A1 and then action A3

#### 6.36 Rule R3 is interpreted as follows:

a. If C1 is TRUE and C2 is TRUE then perform action A1 and A

b. If C1 is TRUE or C2 is TRUE then perform action A3

- c. If C1 is TRUE and C2 is TRUE then perform action A1 or A2
- d. If C1 is TRUE and C2 is TRUE then perform action A3

#### 6.37 Structured English equivalent of the decision table "test" are given below

(i) **if** C1 TRUE

then if C2 TRUE then do A3 else do A1 and A3 end if else do A2 end if (ii) **if** C1 FALSE then do A2 else if C2 TRUE then do A3 else do A1 and A3 end if end if (iii)if C2 TRUE \_\_then if C1 TRUE then do A3 else do A2 end if else do A1 and A3 end if

(iv)**if** C2 FALSE \_\_**then if** C1 TRUE **then** do A1 and A3 else do A2 end if else do A3 end if

Which of the following are correct?

- a. i and iii
- b. i and ii
- c. iii and iv
- d. ii and iv

#### 6.38 Structured English equivalents of decision table "test" are given below.

#### Pick the right one

(i)if C1 TRUE and C2 FALSE then R=1 end if if C1 FALSE then R=2 end if if C1 TRUE and C2 TRUE then R=3 end if case (R) R=1; perform actions A1 and A3 R=2; perform action A2 R=3; perform action A3 end case (ii)if C1 TRUE and C2 FALSE then perform actions A1, A3 end if if C1 FALSE then perform action A2 end if if C1 TRUE and C2 TRUE then perform action A3 end if (iii)case (C1 TRUE and C2 FALSE) Rule R1 case (C1 FALSE) Rule R2 case (C1 TRUE and C2 TRUE) Rule R3 end case (iv)if C1 TRUE and C2 TRUE then do Rule R3 end if

# if C1 TRUE and C2 FALSE then do Rule R1 end ifif C1 TRUE then do Rule R2 end if

- a. i and ii
- b. i and iii
- c. ii and iii
- d. iii and iv
- a. The Elementary Rule Decision Table equivalent of decision table "test" is

Х

C1	Y	N	Y	
C2	Ν	Ν	Y	
A1	Х	_	_	
A2	-	Х	_	
A1 A2 A3	X –			

b.C1 Y N Y  
C2 N Y Y  
A1 X 
$$-$$
  
A2  $-$  X  $-$   
A3 X  $-$  X

d.	C1		Y	Ν	Ν	Y
	C1 C2	Ν	N	Y	Y	
						_
	A1 A2	X	_	_	_	
	A2	I —	Х	_	_	
	A3	Х	_	Х	Х	

#### 6.39 The decision table "test" is

- a. ambiguous
- b. contradictory
- c. incomplete
- d. complete

#### Answer the following referring to the decision table "test2"

	R1	R2	
C1 : x <= 50	N	_	
C2 : x >= 70	_	Ν	
A1	X	_	
A2	_	Х	

#### Decision Table: "test2"

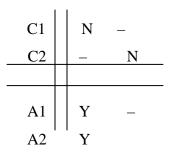
#### 6.40 Decision table "test2" is

- a. really incomplete
- b. complete
- c. apparently incomplete
- d. apparently complete

#### 6.41 Decision table "test2"

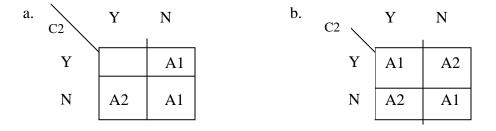
- a. has a real ambiguity
- b. has an apparent ambiguity
- c. is logically correct

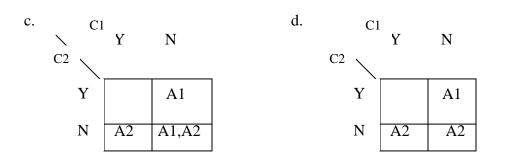
### d. is incomplete



### **DECISION TABLE "testing"**-

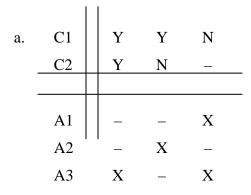
6.42 Decisi	on	table	"testing"	can	be	made	comple	ete
	(i)by	, putting	an ELSE rule					
	(ii)is	as it is c	omplete and de	oes not n	eed any mo	ore rules		
	(iii)by	specify	ing actions wh	en C1 =	Y and C2 =	Y Y		
	(iv)t	by specif	ying actions w	hen C1 =	= N and C2	= N		
a.	(i), (ii)							
b.	(i), (iii)							
c.	(ii), (iii)	)						
d.	(ii), (iv)	)						
6.43 The	<b>K-</b> 1	map	equivalent	of	decision	table	"test2"	is
C 1				C1				





6.44		The	decision	table	equivalent	of	the
following	structured		English		statement		is

if		C2 TRUE	
then	if	C1	TRUE
then	do	A3	
else	do	A2	
end if			
else	do	A1 and	IA3
end if			



b. C2 | Y Y N

#### System Analysis and Design/Structured Systems Analysis and Design Multiple Choice Questions

	C1	Y	Ν	Ν
	A1	-	-	Х
	A2	_	Х	_
	A3	Х	_	Х
0	C1	Y	N	
c.	C1			_
	C2	Y	Y	Ν
	A1	_	_	Х
	A2	-	Х	_
	A3	Х	_	Х
d. C1	Y	Ν	Y	
	C2	Y	Y	Ν
	A1	_	_	Х
	A2	- -	Х	_
	A3	Х	_	Х

# 6.45 The decision table equivalent of the following structured English statement is

if balance in account <=0
then{issue exception note to dept. and mark "stop future issues"}
else if balance in account <min. balance
then {issue item to dept.</pre>

issue warning to dept.}

else {issue item to dept.} end if end if

C1=balance in account <=0;

C2=balance in account < min. balance

A1=issue exception note and mark "no future issues"

A2=issue item to dept

A3=issue warning to dept.

a.	C1	Y	N	N
	C2	-	Y	N
	A1	X	–	-
	A2	-	X	X
	A3	-	X	-

	1	1			
b.	C1	Y	N Y	Ν	Y
	<u>C2</u>	N	Y	N	Y
	A1	Х	_	_	_
	A2	_	Х	Х	Х
	A3	_	Х	_	_

c.	C1	N	Ν	Ν
	C1 C2	-	Y	Ν
	A1	х	_	_
	A2	_	Х	Х
	A3	_	Х	_

d.	C1	Y	Ν	Y
	C2	Ν	Y	Ν
	A1	Х	_	_
	A2	_	Х	Х
	A3	_	Χ –	

#### 6.46 The decision table given in answer (a) of question 9.4.3 is

- a. incomplete
- b. apparently ambiguous
- c. has contradictory specifications
- d. logically complete

# 6.47 The rule C1=Y, C2=Y in the decision table given in answer (a) of question 6.3.7 is

- e. logically impossible
- f. logically possible
- g. has no action specified
- h. has multiple actions specified

# 6.48 If min. balance > 0 then the rule C1=Y, C2= – in the decision table given

#### in answer (a) of question 6.3.7 may be replaced by the rule

- i. C1=Y, C2=N
- j. C1=Y, C2=Y
- k. C1= -, C2=Y
- l. C1= -, C2=N

C1C2

### **6.49 The actions of a decision table are mapped on a K-map shown be** The boxes marked X denote impossible rules

C3	NN	NY	YY	YN
Y	A1	A1	A2	$\searrow$
Ν	A1	A2	A2	$\searrow$

The rule for action A1 may be represented by the following minimal Boolean expression

- a.  $\overline{C1.C2} + C1.C2.C3$
- b.  $\overline{C1}.\overline{C2}.\overline{C3} + C1.C3$
- c.  $C\overline{1}.C\overline{3} + C2$
- **d.** C1.C3 + C2.C1
- 6.50 The following decision table may be replaced by its best equivalent shown below:

	C1	Ν	Ν	Ν	Ν	Y Y	Y	Y	
	C2	Ν	Ν	Y	Y	Y	Y	Ν	Ν
	<u>C3</u>	Y	N	N	Y	Y	N	N	Y
	A1	Х	_	_	Х	_	_	Х	Х
	A2	_	Х	Х	_	Х	Х	Х	Х
a.	C1	Ν	Ν	Y	Y				
	C2	_	_	Y	Ν				
	C3	Y	Ν	_	_				
						-			
	A1	Х	_	_	Х				
	A2	_	Х	Х	Х				
b.	C1	_	Y	Ν	Y				
	C2	_	_	_	Ν				
	C3	Ν	_	Y	_				
						_			
	A1	_	_	Х	Х				

	A2	Х	Х	_	Х	
c.	C1	Ν	_	Y	Ν	Y
	C2	_	Y	Y	_	Ν
	C3	Ν	Ν	_	Y	_
	A1	_	_	_	Х	X
	A2	Х	Х	Х	_	Х
	I	1				
d.	C1	Y	Ν	Ν	Y	
	C2	_	_	_	Ν	
	<u>C3</u>	_	N	Y	_	
	A1	_	_	Х	Х	
		A2	Х	Х	_	Х

# 6.51 The following decision table may be replaced by its best equivalent shown

	below:								
	C1	Ν	Ν	Ν	Ν	ΥY	Y	Y	
	C2	Ν	Ν	Y	Y	Y	Y	Ν	Ν
	<u>C3</u>	Y	N	N	Y	Y	N	N	Y
	A1	Х	_	_	Х	_	_	Х	Х
	A2	_	Х	Х	_	Х	Х	Х	Х
	I	I							
a.	C1	Ν	Ν	Y	Y				
	C2	_	_	Y	Ν				
	C3	Y	Ν	_	_				
						- -			
	A1	Х	_	_	Х				
	A2	_	Х	Х	Х				

		ĺ							
b.	C1	_	Y	Ν					
	C2		_	_	Ν				
	C3	Ν	-	Y	-				
						_			
	A1	-	_	Х	Х				
	A2	Х	Х	_	Х				
	01	<b>.</b>		τ7	27	• 7			
с.	C1			Y					
		-		Y	_	Ν			
	C3	Ν	Ν	_	Y	—			
	A1	_	_	_	Х	Χ			
	A2	Х	Х	Х	-	Х			
d.	C1	Y	Ν	N	Y				
u.	C2	_		_	N				
	C2 C3	_		Y					
			1	1					
	A1	 _	_	Х	Х				
		A2	Х	Х	_	Х			
( 5)	$C^{1}$	NT	NT	N	NT	VV	V	V	
0.54						Y Y			N
	C2					Y			
	<u>C3</u>	Y	N	N	Y	Y	N	N	Y
	A1	X	_	_	X	_	_	Х	Х

	A2	_	Х	Х	_	Х	Х	Х	Х
a.	C1	N	N	Y	Y				
	C2	_	_	Y	Ν				
	C3	Y	N	_	_				
	 A1	X	_		X				
	A2	_	X	X					
	112		Δ	Δ	7				
	1								
b.	C1	_	Y _	Ν	Y				
	C2	_	_	_	Ν				
	C3	Ν	_	Y	_				
	A1	_	_	Х	Х				
	A2	Х	Х	_	Х				
с.	C1	N	_	Y	N	Y			
	C2	_	– Y	Y	_	N			
	C3		Ν	_	Y	_			
							-		
	A1	_	_	_	X	X	-		
	A2	Х	Х	Х	_	Х			
d.	Cl	Y	Ν						
	C2 C3	-	-						
	<u>C3</u>		N	Y	_				
	-+	1							

		A1	_	_	Х	Х					
			A2	Х	Х	_	2	X			
6.53		Given	the	decisio	n tab	le "tes	st 3	"answer	the	following	g questions:
		R	1	R2	R3	R4		R5	R6	R7	R8
	x>=	20	Y	Y	Y	Y	N	Ν	Ν	Ν	
	x<=	30	Y	Y	Ν	Ν	Y	Y	Ν	Ν	
-	y>=	X	Y	N	Y	N	Y	N	Y	N	
-											
	A1		Х	Х	Х	Х	_	_	_	_	
	A2		_	_	_	_	Х	Х	_	_	
	A3		_	_	_	_	_	_	Х	Х	
	<b>a.</b> 1	Rules l	R7, R8	are logi	ically	imposs	ible				
	<b>b.</b> 1	Rules I	R5, R6	are logi	ically i	imposs	ible				
	<b>c.</b> 1	Rules I	R3, R4	are logi	ically	imposs	ible				
	<b>d.</b> 1	Rules I	R1, R2	are logi	ically	imposs	ible				
6.54	Pick	<b>x</b> the c	orrect	equival	lent of	f"test	3"				
a.	C1	Y N				1	b.	C1	Y	N ]	N
								C2	_	Y	N
	A1	X		_							
	A2	- -	Х					A1	Х	_	_
										X	_
										- 3	X
	1	1									
c.	C1	Y	Y	N	N		d.	C1	Y	N Y	N
	C3	Ν	Y	Ν	Y			C2	_	Y	N
	C2		_	_	_		-				
-							-				
	A1	X	Х	_	_			A1	Х	_	_
	A2		_	X	Х			A2		X	_
	114	_	_	11	<b>1</b>			114		<b>2 1</b>	

A3 – – X

#### 6.55 The decision table "test 3" is

- a. Incomplete
- b. Ambiguous
- c. Incorrect
- d. .has redundancies

#### 6.56 The decision table equivalent of the following Boolean expression is

$$A2= C1.C3 + C3.\overline{C2}.\overline{C1} + \overline{C1}.\overline{C2}.\overline{C3}$$

\_

c.	C2	Y	Y	Y	Ν	Ν				
	C1	Y	Ν	_	Ν	Ν				
	C3	Ν	Y	Y	Y	N				
							_			
	A1	Х	Х	_	_	_				
	A2	_	_	Х	Х	Х				
	I	1								
d.	C1	Y	Y	Y	Ν	Ν				
	C2	Y	Ν	_	Ν	Ν				
	C3	Ν	Y	Y	Y	Ν				
	A1	Х	Х	_	_	_				
	A2	Х	Х	Х	Х	Х				
	6.57	Α	deci	sion	table	e "test	<b>4" i</b>	s giv	en be	low
	I	1								
	C1	Y	Y	Ν	_	_	Ν	Y	Ν	
	C2	Y	_	Ν	Y	_	Ν	Ν	_	
	C3	Y	Y	Y	_	Y	Ν	Ν	Ν	
	C4		Y		Y	N	_	_	N	
	A1	X	Х	Х	_	_	_	_	_	
	A2	I 	_	_	Х	Х	_	_	_	
	A3	_	_	_	_	_	Х	Х	_	
	?	_	_	_	_	_	_	_	Ι	

where I indicates impossible rule

### The contradictory rules are

a. YYYY, NYYY, NNYY

- b. YYYN, NYYN, NNYN
- c. YYYY, YYYN, NNYN
- d. There are no contradictory rules

6.58 In "test 4" the contradictory actions are:

- a. A1, A3
- b. A1, A2
- c. A2, A3
- d. A2, I

6.59 In "test 4" missing rule is:

- e. NYNN
- f. NYYN
- g. YYNN
- h. YNYN

6.60 If in "test 4" the rules where the contradictory actions or unspecified actions are present, the action is replaced by A2 only, the reduced decision table using impossible rules also for reduction is:

a.	C1	_	_	_	_	_	Ν	
	C2	Ν	_	Y	Y	_	Ν	
	C3	Y	Y	_	Y	Ν	Ν	
	C4	Y	Ν	Y	_	Ν	_	
	A1	Х	_	_	_	_	_	_
	A2	_	Х	Х	Х	_	_	
	A3	_	_	_	_	Х	Х	
	1.1							
b.	C1	Ν	Y	_	_	_	Ν	Ν

	C2	Ν	Ν	Y	Y	_	_	N
	C3	Y	Y	Ν	Y	Y	Ν	Ν
	<u>C4</u>	Y	Y	Y	_	N	N	
	A1	Х	Х	_	_	_	_	_
	A2	_	—	Х	Х	Х	_	_
	A3	_	—	_	_	_	Х	Х
с.	C1	-	_	_	_	Ν		
	C2	Ν	_	Y	_	Ν		
	C3	Y	Y	_	Ν	Ν		
	<u>C4</u>	Y	N	Y	N	_	_	
							-	
	A1	Х	_	_	_	_		
	A2	_	Х	Х	_	_		
	A3	_	_	_	Х	Х		
J	C	N	V		N			
d.	C2 C3	N Y	Y	– Y	N N			
			-	_	IN			
	C4	Y	_	Ν				
	A 1	v						
	A1	X	- V	- V	_			
	A2	_	Х	Х				
	A3	– ecision 7	_	_	Х			

6.61 Decision Trees are preferred when

- a. Too many conditions need to be tested
- b. Sequencing of testing conditions is important
- c. When there are many loops to be performed
- d. When too many actions are to be taken

#### 6.62 Decision Tables are preferred when

- a. Too many conditions need to be tested
- b. Sequencing of testing conditions is important
- c. When there are many loops to be performed
- d. When too many actions are to be taken

#### 6.63 Structured English is preferred when

- a. any conditions need to be tested
- b. Sequencing of testing conditions is important
- c. When there are many loops to be performed
- d. When too many actions are to be taken

#### 6.64 The objective of using decision trees is to

- a. Expand a DFD so that a user can understand it
- b. To specify sequence of conditions to be tested and actions to be taken
- c. Describe a computational procedure that can be easily understood by a person
- d. Use it as a tool in decision support system

#### 6.65 Decision trees are superior to decision tables when

- a. The number of conditions to be tested is very large
- b. When sequence of testing conditions is not particularly important
- c. When sequence of testing conditions is not particularly important
- d. When a large number of actions are to be specified

#### 6.66 Logical correctness of a specifications can be systematically checked by

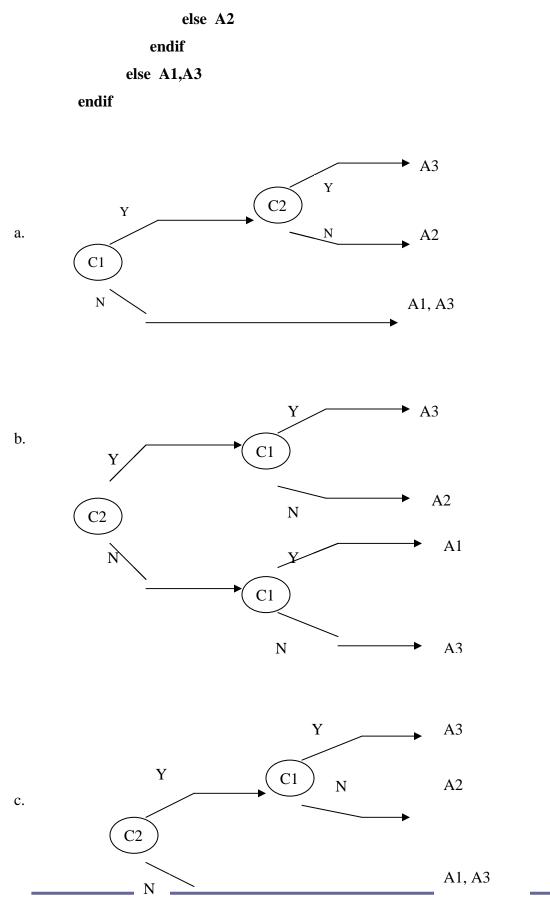
- a. Using decision trees
- b. Using structured English
- c. Using DFD's
- d. Using decision tables

#### 6.67 The decision tree equivalent of the following structured English is

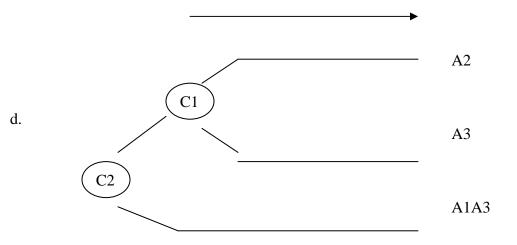
#### if C2 then

#### if C1

#### then A3



M6/V1/July 04/29



#### 6.68 Decision tables are better then Decision trees when

- a. Conditions are to be isolated from actions in a word statement
- b. Condition sequences are to be found from a word statement
- c. Logical correctness of a word statement is to be established
- d. Large number of actions is to be performed

#### 6.69 The decision table equivalent of the Decision tree of choice (a) of 6.5.7 is

	C2 C1	Y N	N Y	N N	Y Y	
-	A1 A2 A3	X - X	- X -	X X -	- - X	

b.

a.

C1	Y	Y	N	
C2	Y	N	-	
A1	-	-	X	
A2	-	X	-	
A3	X	-	X	

c.

C.					
	C1 C2	Y Y	Y	Ν	
	C2	Y	Ν	Y	
-	A1	-	-	Х	
	A2	-	Х	-	
	A3	Х	-	Х	

V. Rajaraman/II

M6/V1/July 04/30

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C1 Y Y Ν C2 Y Ν Y -Х A1 --X A2 A3 X --X Error

d.

6.1 b	6.2	c	6.3	a	6.4 d	6.	5 c	6.6	a	
6.7 b	6.8	d	6.9	b	6.10	d	6.11	a 6	.12 c	
6.13 a	6.14	c	6.15	b	6.16	b	6.17	a	6.18	d
6.19 a	6.20	b	6.21	c	6.22	d	6.23	a	6.24	b
6.25 a	6.26	c	6.27	c	6.28	d	6.29	b	6.30	a
6.31 c	6.32	d	6.33	b	6.34	a	6.35	d	6.36	d
6.37 b	6.38	a	6.39	c	6.40	d	6.41	c	6.42	a
6.43 b	6.44	c	6.45	c	6.46	a	6.47	d	6.48	b
6.49 b	6.50	с	6.51	a	6.52	b	6.53	a	6.54	a
6.55 d	6.56	a	6.57	c	6.58	b	6.59	c	6.60	d
6.61 b	6.62	a	6.63	c	6.64	b	6.65	C	6.66	d
6.67 c	6.68	c	6.69	b						

### Key to Objective Questions