

Name:

**Enrolment No:** 

## UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

**End Semester Examination, July 2020** 

Course: Compiler Design

Program: B.Tech-CS- OGI+BAO

Course Code: CSEG3015

Semester: VI

Time 02 hrs.

Max. Marks: 100

Instructions: There are 60 multiple choice questions. All are compulsory.

Points: 1

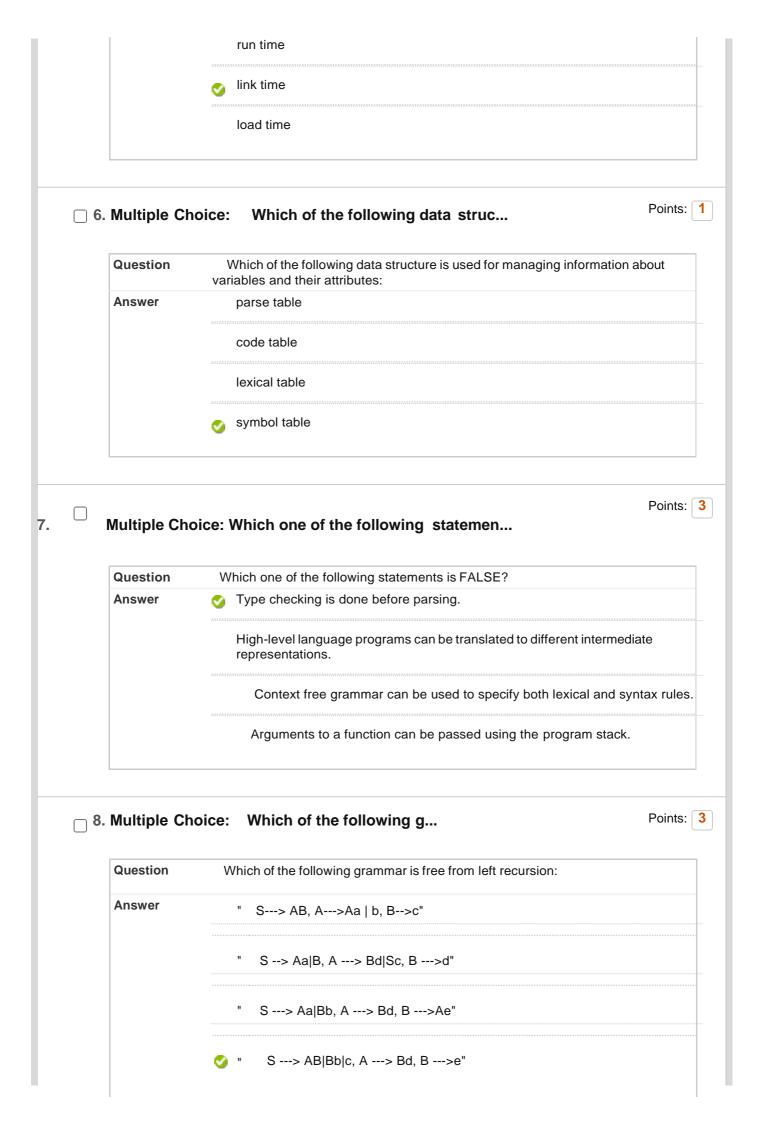
1. Multiple Choice: "In a compiler, keywords of a language...

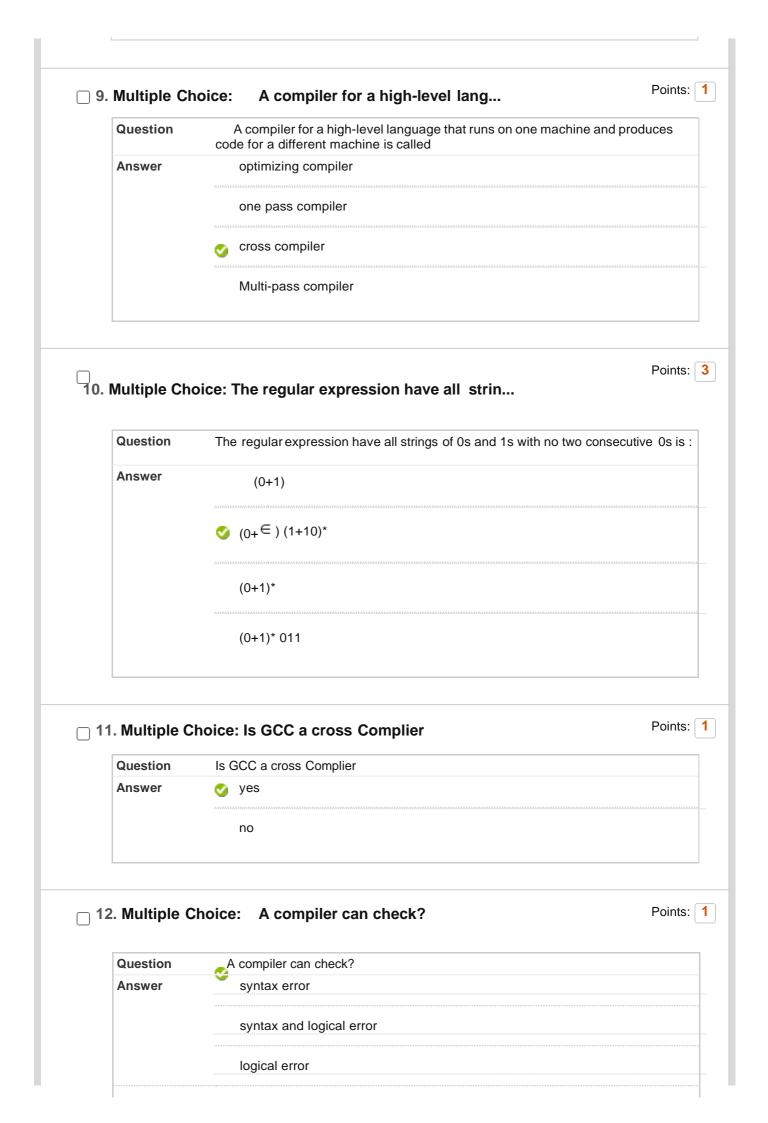
Question	"In a compiler, keywords of a language are recognized during"
Answer	parsing of the program
	code generation
	✓ lexical analysis
	none

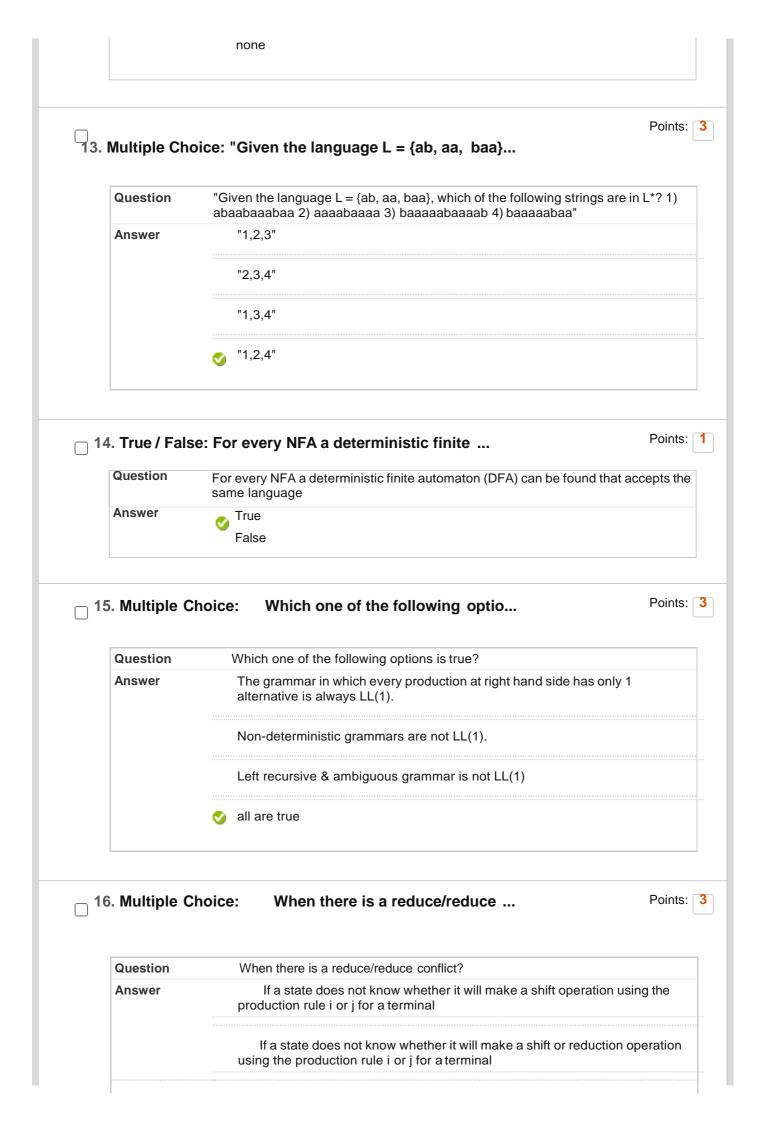
Points: 3

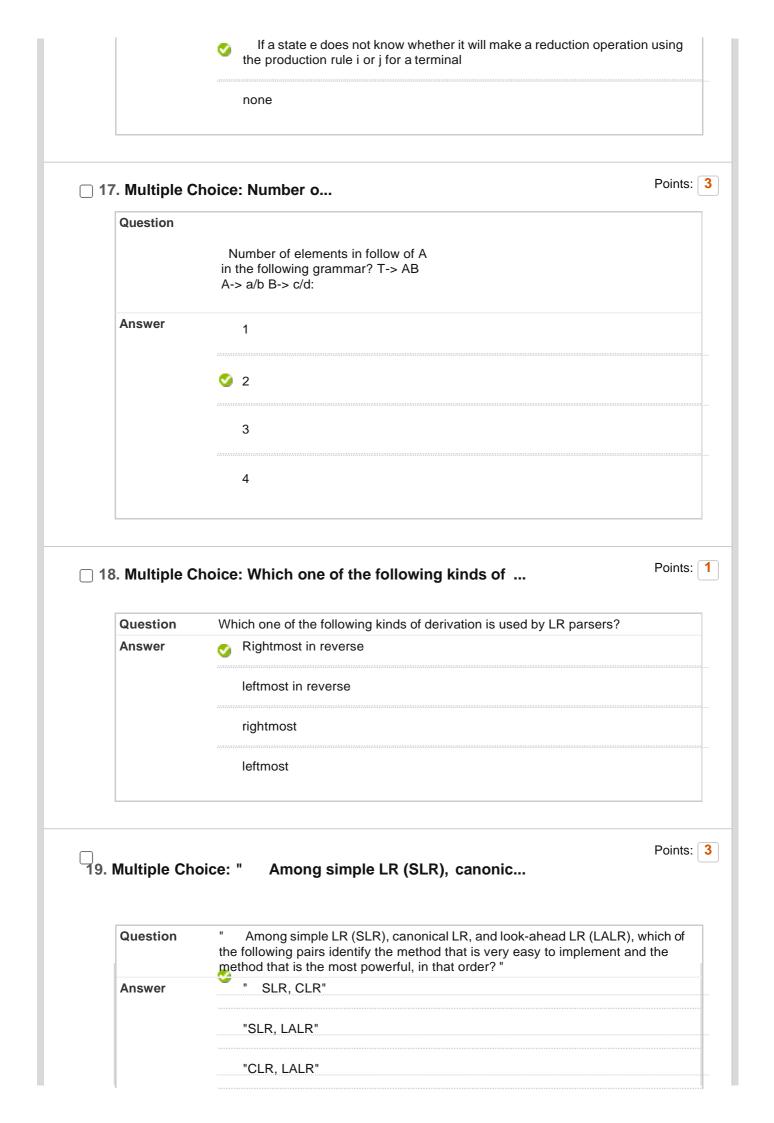
2. Multiple Choice: How many derivatio...

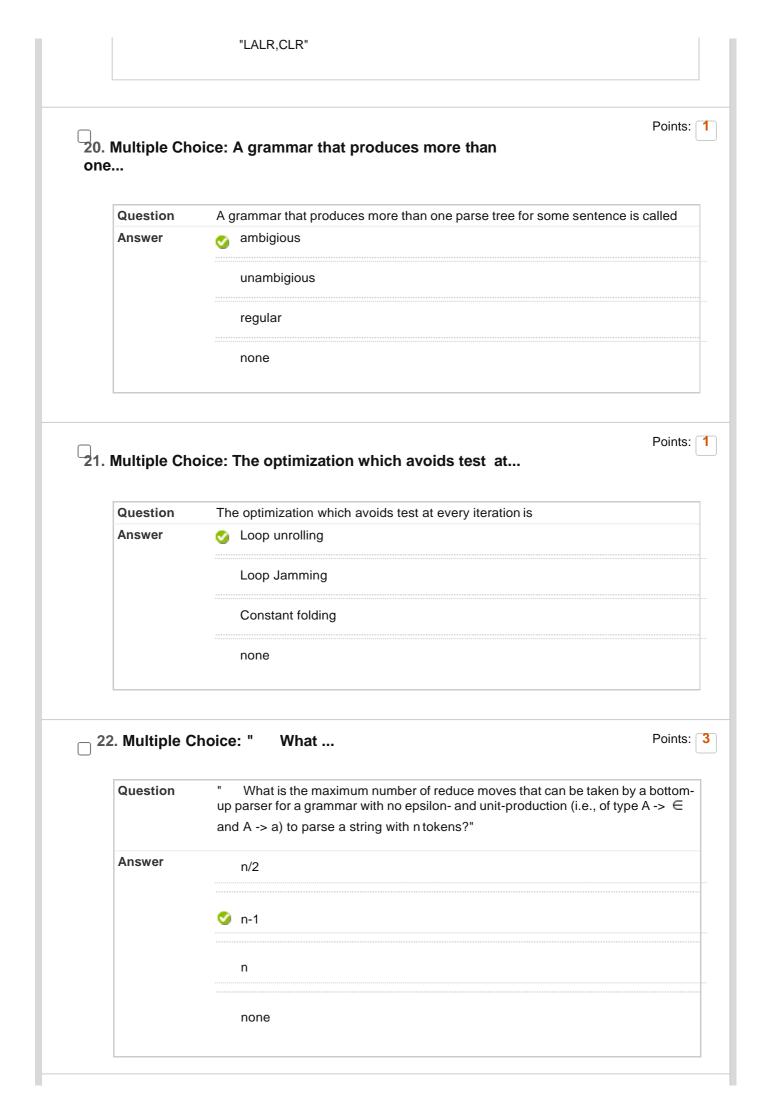
	How many derivation trees are there for string aaa given grammar G? S $ \rightarrow $ aS   Sa   a			
Answer	3			
	4			
	5			
	6			
Multiple Ch	noice: An identifier is permitted to be			
Question	An identifier is permitted to be a letter followed by any number of letter and digits. Which of the following expression defines an identifier:			
Answer	(L+D)*			
	(L+D)+			
	L(L+D)+			
	∠(L+D)*			
Multiple Ch	noice: " The number of tokens in the followi  "The number of tokens in the following C statements are: printf( i=%d, &i=%x ,			
-	ioloc. The number of tokens in the followin:			
Question	"The number of tokens in the following C statements are: printf( i=%d, &i=%x , );"  10			
Question	"The number of tokens in the following C statements are: printf( i=%d, &i=%x , );"  ✓ 10  3			
Question	"The number of tokens in the following C statements are: printf( i=%d, &i=%x , );"  10  3  21			
Question	"The number of tokens in the following C statements are: printf( i=%d, &i=%x , );"  ✓ 10  3			
Question Answer	"The number of tokens in the following C statements are: printf( i=%d, &i=%x , );"  10  3  21			
Question	"The number of tokens in the following C statements are: printf( i=%d, &i=%x , );"			

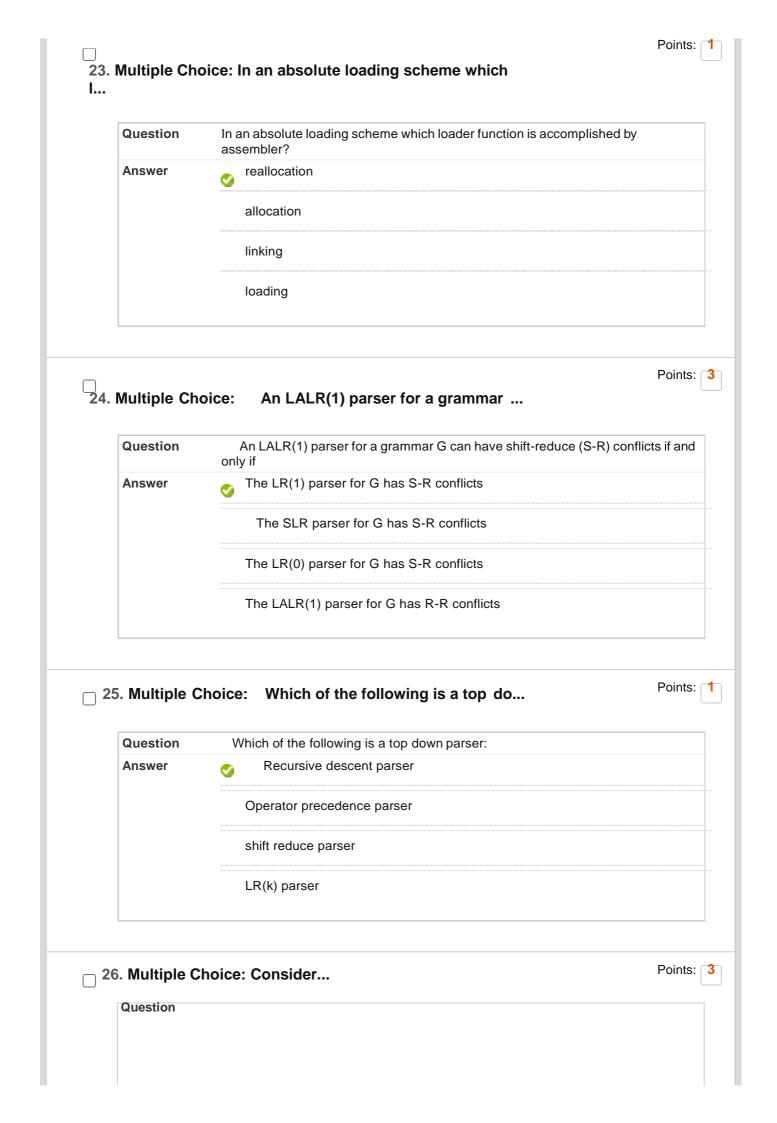




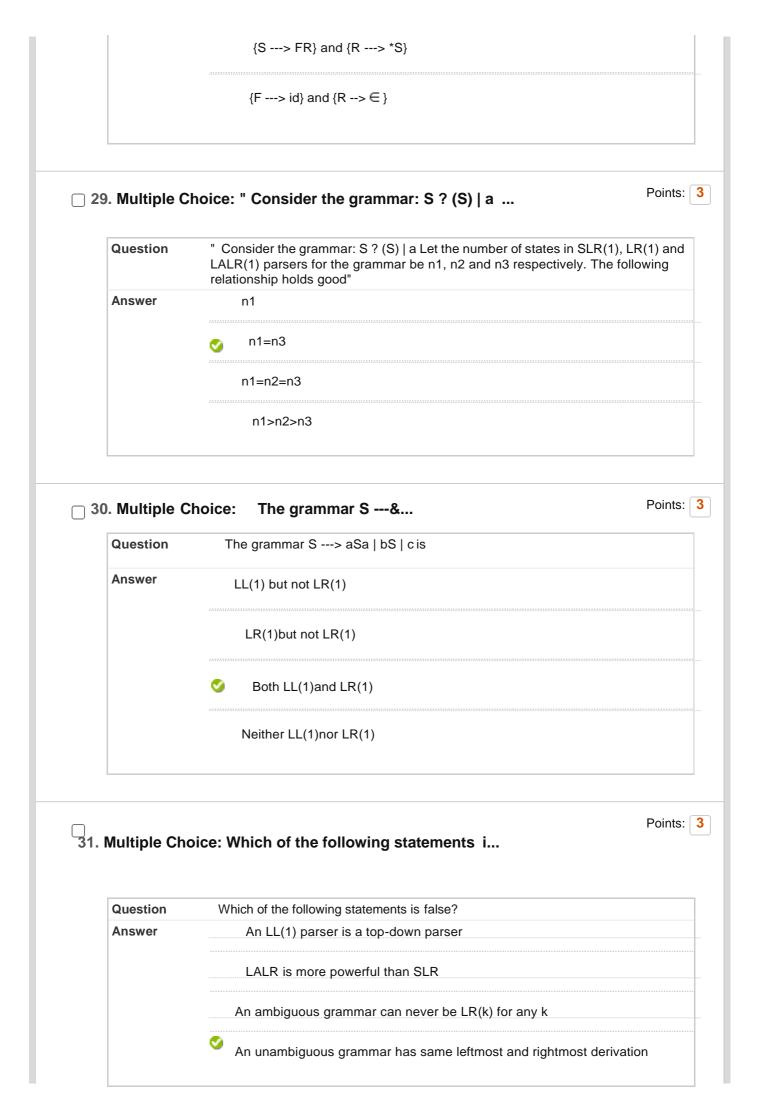


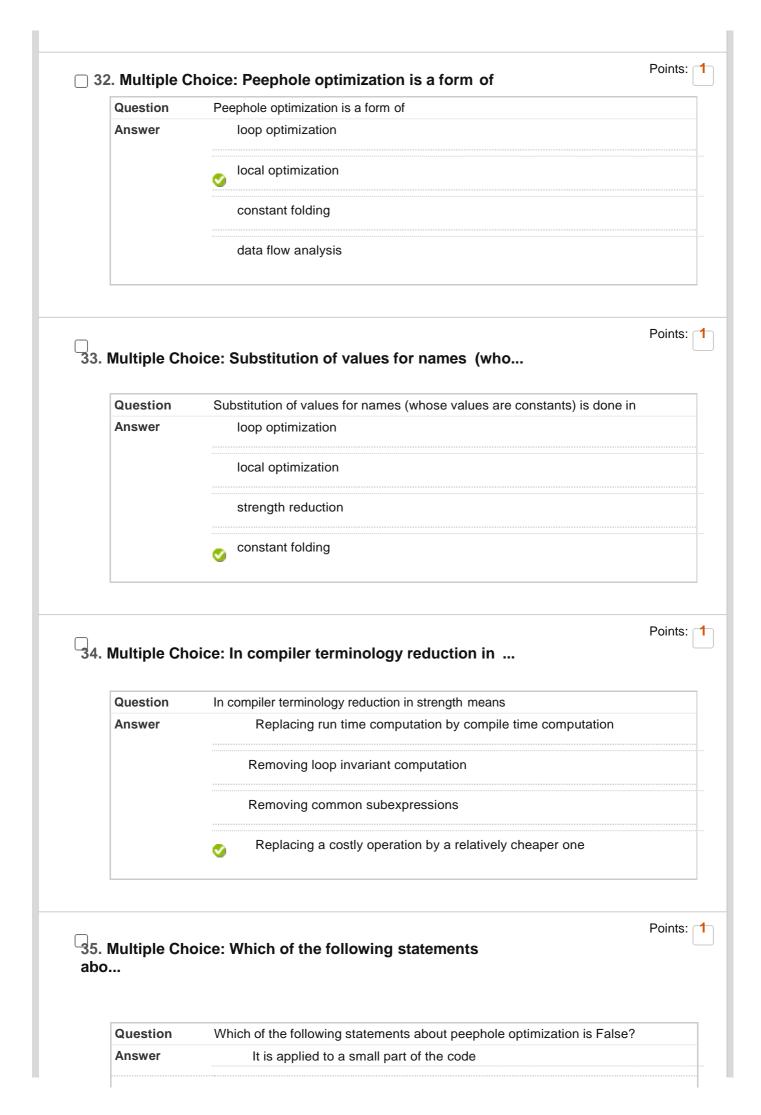


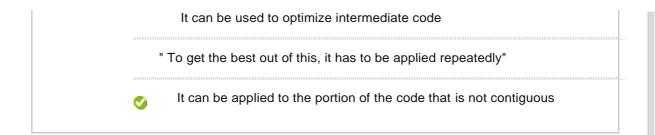




	Consider the grammar with non-terminals $N = \{S,C,S1\}$ , terminals $T = \{a, b, i, t, e\}$ , with $S$ as the start symbol, and the following set of rules: $S> iCtSS1 aS1> eS  \in C> b$ The grammar is NOT LL(1) because:	
Answer	context free	
	left recursive	
	right recursive	
7. Multiple C	Choice: &n  A canonical set of items is given	Point
Answer	below S> L. > R Q> R. On input symbol < the set has	
Answer	A S-R and R-R conflict	v.1100.1100.11
	A S-R but not R-R conflict	v1001001001
	A R-R but not S-R conflict	***************************************
	✓ Neither S-R nor R-R conflict	
3. Multiple C	Choice: " Consider the following	Point
3. Multiple C	Choice: " Consider the following  " Consider the following grammar: $S>FR$ , $R> S \mid \in$ , $F>$ id In the predictive parser table, M, of the grammar the entries M[S, id] and M[R, \$] respectively."	Point
	" Consider the following grammar: $S> FR$ , $R> S \mid \in$ , $F> id In the predictive parser table, M, of the grammar the entries M[S, id] and M[R, $]$	Point







36. Multiple Choice: The graph that shows basic blocks and...

Points: 1



Question	The graph that shows basic blocks and their successor relationship is called
Answer	DAG
	Control graph
	✓ flow graph
	hamiltonian graph

37. Multiple Choice: Dead-code elimination in machine code...

Points: 1



Question	Dead-code elimination in machine code optimization refers to:
Answer	Removal of all labels
	Removal of values that never get used
	Removal of function which are not involved
	Removal of a module after its use

Points: 1



38. Multiple Choice: Some code optimizations are carried o...

Question Some code optimizations are carried out on the intermediate code because: they enhance the portability of the compiler to other target processors **Answer** program analysis is more accurate on intermediate code than on machine code the information from dataflow analysis cannot otherwise be used for optimization

