COMP - Semantic Analysis I (MIEIC - Compilers - 2021)

131	2.1	Active
Responses	Average Score	Status

1. Select the codes for which you expect that javac (the java compiler) reports a semantic error (assume that the methods are part of well-formed Java classes: (a) int f1(int A[]) { int i = -1; return A[i]; } (b) int f2(boolean b) { int c; if(b) { c=1; } else { c=2; } return c; } (c) int f3(int A[]) { int b=1; int c; while(b < 20) { c=b; b++; } return c; } (1 point)

   59% of respondents (77 of 130) answered this question correctly.

(a)	49	
(b)	4	
(c)	92	✓

2. Select the codes for which you expect that javac (the java compiler) reports a semantic error (assume that the methods are part of well-formed Java classes: (a) int f4(int b) { int c; if(b>1) if(b<10) c=1; else c = 2; else c=2; return c; } (b) int f5(int b) { int c; if(b>1) { if(b<10) c=1; if(b>=10) c = 2; } else c=2; return c; } (c) int f6(int b) { int c; if(b>1) if(b<10) c=1; else if(b==3) c = 2; else if(b==2) c = 4; else c = 5; else c=2; return c; } (1 point)

   68% of respondents (88 of 130) answered this question correctly.

(a)	10	
(b)	88	✓
(c)	32	

3. Select the option regarding the result of the semantic analysis of the following Java method: 1. public static void main(String args[]) { 2. int d1, d2; 3. int a= 5; 4. int b=2; 5. double c =2d; 6. 7. d1 = (int) (a*b*c); 8. d2 = (int) a*b*c; 9. System.out.println("d1: "+d1+"\n"); 10. System.out.println("d2: "+d2+"\n"); 11. } (1 point)

   83% of respondents (109 of 131) answered this question correctly.

The code is semantically correct	14	
There is a semantic error in lin...	8	
There is a semantic error in lin...	109	✓

4. Select the option regarding the following Java statement: long a = 140737488355328; (1 point)

   1% of respondents (1 of 131) answered this question correctly.

The code is correct;	23	
The code has a semantic error...	95	
The code has a syntactic error ...	12	
The code has a semantic error...	1	✓