

ESc101N Endsem: Solutions and Grading Scheme

April 29, 2010

Question 1(a)

Answer	Marks	Remarks
$(1+y)^2$ $(1+y)^4$	5	Both answers in same line acceptable. 2 marks for getting one of two right.

Question 1(b)

Answer	Marks	Remarks
$2+y^2$	3	Both answers in same line acceptable.
$3+4y^2+y^4$	7	
$(2+y^2)^2-1$	3	Partial marks for second part

Question 2

Answer	Marks	Remarks
<code>A[i][j] != A[j][i]</code>	10	5 marks for <code>A[i][j] <> A[j][i]</code>

Question 3

Answer	Marks	Remarks
		If all errors are pointed out in the alternate error scenario, it is acceptable. However, deduct one mark for missing to point out one error.
Error 1: Variable i is not defined	3	“Variable i not initialized” is wrong answer! No marks for it.
Error 2: { missing at the end of line 4:	3	
Error 3: ; missing at the end of line 6	1	
Error 4: On line 8, return command should return an integer	3	Equivalently, on line 1, main() should have return type void.

Question 4(a)

Answer	Marks	Remarks
<pre>struct student { char name[50]; char rollno[10]; };</pre>	5	

Question 4(b)

Answer	Marks	Remarks
Shikha	3	One mark each for giving only the first letter.
335	4	
udha	3	

Question 5

Answer	Marks	Remarks
reverse(A+1, n-1, B)	15	5 marks for getting each argument right. Note that A++ is incorrect, while ++A is correct. Answer of *(A+1) or *B is wrong and gets no marks.

Question 6

Answer	Marks	Remarks
A[m]++	15	Or, A[m] = A[m] + 1
A[m] = 1	7	Does not account for multiple occurrences

Question 7

Answer	Marks	Remarks
?1?: Stack *S	4	
?2?: *S = C:	8	Note that S = &C is wrong! Give 4 marks for it.
?3?: *S = C->next	8	Note that S = &(C->next) is wrong! Give 4 marks for it.

Question 8

Answer	Marks	Remarks
cb	4	Deduct 4 marks for getting the order of first three strings wrong.
cb	4	
c	4	
4	3	

Question 9(a)

Answer	Marks	Remarks
9 3 12 11 26 73 83 93 67 45 13	20	Partial marks for partially correct output

Question 9(b)

Answer	Marks	Remarks
f(T->left); printf(" %d", T->element); f(T->right);	5	Decreasing order also OK.
f(T->right); printf(" %d", T->element); f(T->left);	5	