2018/06/26

Program Design
Final-Test – 2018

Open for the second part

Name: _____ **Student NO.** _____

I. Matching (10 %)

_i_ 1. catch block	_j_ 2. auto_ptr
_a_ 3. Exception handling	_h_ 4. catch(...)
_b_ 5. try block	_g_ 6. bad_alloc
_g_ 7. Throw point	_d_ 8. throw()
_e_ 9. Inheritance.	_f_ 10. terminate()

a. Helps improve a program's fault tolerance.
b. Encloses the code that may generate an exception.
c. Exception thrown when new fails.
d. Indicates that a function does not throw exceptions.
e. A form of software reuse in which new classes absorb the data and behaviors of existing classes and embellish these classes with new capabilities.
f. When an exception is not caught in a program, this function is called.
g. Location in the program at which an exception occurs.
h. "Catch all" handler that catches any exception.
i. Encloses the code that is executed when an exception is caught.
j. Class template that helps avoid memory leaks.

II. Closing (30 %)

a. A self-_____ class is used to form dynamic data structures that can grow and shrink at execution time.
b. The _____ operator is used to dynamically allocate memory and construct an object; this operator returns a pointer to the object.
c. A(n) _____ is a constrained version of a linked list in which nodes can be inserted and deleted only from the start of the list and node values are returned in last-in, first-out order.
d. A function that does not alter a linked list, but looks at the list to determine whether it is empty, is an example of a(n) _____ function.
e. A queue is referred to as a(n) _____ data structure, because the first nodes inserted are the first nodes removed.
f. The pointer to the next node in a linked list is referred to as a(n) _____.
g. The _____ operator is used to destroy an object and release dynamically allocated memory.
h. A(n) _____ is a constrained version of a linked list in which nodes can be inserted only at the end of the list and deleted only from the start of the list.
i. A(n) _____ is a nonlinear, two-dimensional data structure that contains nodes with two or more links.
j. The nodes of a(n) _____ tree contain two link members.
k. The first node of a tree is the _____ node.
l. Each link in a tree node points to a(n) _____ or _____ of that node.
m. A tree node that has no children is called a(n) _____ node.
n. The three common traversal algorithms for a binary tree are _____, _____, and _____.
o. Treating a base-class object as a(n) _____ can cause errors.
p. Polymorphism helps eliminate _____ logic.
q. If a class contains at least one pure virtual function, it is a(n) _____ class.
r. Classes from which objects can be instantiated are called classes.
s. Operator _____ can be used to downcast base-class pointers safely.
t. Operator **typeid** returns a reference to a(n) _____ object.
u. _____ involves using a base-class pointer or reference to invoke virtual functions on base-class and derived-class objects.
v. Overridable functions are declared using keyword _____.
w. Casting a base-class pointer to a derived-class pointer is called _____. (25)
x. The three forms of inheritance are _____, _____ and _____.
y. In a(n) _____ relationship, an object of a derived class also can be treated as an object of its base class.
z. In a(n) _____ relationship, a class object has one or more objects of other classes members.

ANSWERS: (Using the following format in answer sheet)

I

1. _____ 2. _____ 3. _____ 4. _____ 5. _____
6. _____ 7. _____ 8. _____ 9. _____ 10. _____

II

1. _____ 2. _____
3. _____ 4. _____
5. _____ 6. _____
7. _____ 8. _____
9. _____ 10. _____
11. _____ 12. _____
13. _____ 14. _____
15. _____ 16. _____
17. _____ 18. _____
19. _____ 20. _____
21. _____ 22. _____
23. _____ 24. _____
25. _____ 26. _____
27. _____ 28. _____
29. _____ 30. _____

3.短篇小說（壓力） (看了不要有壓力，趕快寫)

1.他在路上載了一個搭便車的美女,她急病暈倒在車上，他不得不送她去醫院.
*此時他感受到壓力的存在.

2.到了醫院,朋友醫生說美女懷孕了,恭喜他要做爸爸了.
他說孩子不是自己的. 可是美女說孩子是他的.
*這讓他焦慮不安.

3.他不得不要求做 DNA 測試證明自己的清白.
測試後,醫生說他是天生不孕症患者,他是清白的
*聽後他憂慮重重.

4.在回家的路上,他不斷想著家裡自己的三個孩子.
*他感覺到心力交瘁.

5.回到家裡,老婆開心的迎上去,說她又有了.
*他覺得真是生不如死.

6.不管老婆如何解釋,他堅持和老婆離了婚.
*之後善良的他出家了.

7.某日他碰到醫院的老友,老友說：怎麼樣…… 上次那女的是想訛你吧?我一看就知道!我還不瞭解你嗎? 所以幫你處理了……說你是不育症患者!呵呵! 該請我吃頓飯吧.
*如今,他進了精神療養院.