Disclaimer: This is a past student’s attempt at remembering most of the questions. Some are missing, but for the most part, the questions are very similar to the finals of Fall 2014 & Spring 2015. The Blue Book questions happen to repeat some of the time from previous exams (including Exam One and Exam Two). In another file, I have my attempts at answering these questions. Take them with a pinch of salt, they are not entirely functional, but mostly easy to understand what to remember.

-Sundeep K.

White Book

EC1)

Write an implementation of count, which takes arr, and arr+7, and checks how many times it's in it. – he gives you the basics but learn what a template is and how its supposed to look like. Use iterators for this question

EC2)

Who made C++ - stroustrup

3)

An exception is not caught. What happens? – the program will crash

4)

Linked list question,

list->next->next->data will print what? – gives third nodes data

5)

Which will copy a list?

Node\* a,\*b; (\*b because pointer syntax)

a ==b,

a=b,

\*a=\*b;

(need to deref because the assignment operator will be called)

6)

class Embedded {

public:

Embedded() {cout << "1";}

~Embedded() {cout << "2";}

};

class Grandparent {

public:

Grandparent() {cout << "3";}

~Grandparent() {cout << "4";}

};

class Parent: public Grandparent {

public:

Parent() {cout << "5";}

~Parent() {cout << "6";}

private:

Embedded embed;

};

class Child: public Parent {

public:

Child() {cout << "7";}

~Child() {cout << "8";}

};

int main() {

Child a;

}

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Must have destructors because when you mess with the memory heap, you will get memory leaks. Otherwise, if you don’t, it already has default destructors. This question will definitely be on your test.

7)

Recursion question

f(5) prints?

f(int n){

cout << a;

if (n>1){

f(n/2)

cout << b;

f(n/2)

cout << c;

}

}

a f(2) b f(2) c

a a b a c

a a a b a c b a a b a c c

8)

Given a class, where += is defined, write the definition for +

Object operator+=(const Object rhs, Object other)

{

Rhs+= other;

Return rhs;

}

9)

Given a class and multiple sub-classes, can you access certain methods?  
class Something{

public:  
private:  
protected: };

Answer: Does not compile because you can't inherit protected methods

10)

Scope operator  
Base::derived

11)

Iterator multiple choice

12) (Exact Question) A class Derived inherits from Base, and has an int member variable foo.

a)

Write a copy constructor for Derived

b)

Write an assignment operator for Derived

13) Int Mystery(x,y)

{

If(y==0)

Return x;

Mystery(y,x%y);

}

Int main() { mystery(21,35); }

Answer was 7

Blue Book

Google some of these. Esp 14a because for Q14, you have the choice of choosing one of the 2 questions to answer

13) Use iterators to sum up a list. Then print the result

14a) Recursion to sum up a tree

14b) Recursion to copy list

14c) Palindrome. See if a word is a palindrome and if yes, return a bool true.

15) Write a function to add two lists, store in a 3rd, and return it.

16)

Class Skyrim{

vector<Dragon\*> vec;

};

Write = operator

Write << operator

17)

This is the what the answer should look like"

Actors perform().

Class theater, hires Performers

Has a showtime(), where all Performers perform

has hire(), to hire a performer

Mimes perform by saying ("blank")

Actors perform by saying "I am <name>" + <script> "

(Similar to lab/recitation with instruments, albeit a little easier)