**Question 1. (DataType and Structures)**

Under Mac OS X 10.5, CGRect, CGSize and CGPoint have the same structure as NSRect, NSSize and NSPoint respectively. Is it true?

1. **Yes**
2. No

**Question 2. (General)**

In which language is Cocoa written?

1. C
2. **Objective-C**
3. C++
4. Java
5. Ruby

**Question 3. (DataType and Structures)**

Is NSString mutable?

1. Yes
2. **No**

**Question 4. (General)**

Is it mandatory to create an NSAutoreleasePool in a Cocoa application?

1. Yes
2. **No**

**Question 5. (Resources)**

What class should be used to load resources?

1. NSResource
2. NSApplication
3. **NSBundle**
4. NSFile
5. None of the above

**Question 6. (Events)**

Can poll() be used to fetch Cocoa events?

1. Yes
2. **No**

**Question 7. (Notifications)**

What is an observer?

1. An object that implements the NSObserver protocol
2. An object that sends a notification
3. An object that receives All notifications
4. **An object registered with the notification center**
5. None of the above

**Question 8. (Class Hierarchy)**

Fill the blank.

NSButton : <> : NSObject

1. NSControl:
2. NSWidget : NSView : NSResponder
3. NSResponder
4. NSWidget
5. **NSControl : NSView : NSResponder**

**Question 9. (Memory Management)**

Can you use malloc/free in a Cocoa application?

1. **Yes**
2. Yes, but only in a separate C library
3. Yes, but we can use only malloc; free is not needed
4. No

**Question 10. (Datatype and Structure)**

How wide is unichar on a 32bit machine?

1. 8bit
2. **16bit**
3. 32bit
4. 64bit
5. 128bit

**Question 11. (General)**

Can an object be the delegate of multiple objects?

1. **Yes**
2. No

**Question 12. (General)**

Which of the following platforms supports Cocoa?

1. Windows
2. Linux
3. **Mac OSX**
4. Solaris
5. None of the above

**Question 13. (Resources)**

Where should application resources be usually put?

1. In /System
2. In /Library
3. **Within the application’s bundle**
4. In /Resources
5. None of the above

**Question 14. (Events)**

What is the normal way of handling cocoa events?

1. By polling for events
2. By registering an event watcher
3. **By implementing NSResponder methods in subclasses**
4. None of the above

**Question 15. (Memory Management)**

What will be the output of the following code?

NSRect rect = NSMakeRect(0,0,10,10);  
NSRect \*rect2 = malloc(sizeof(\*rect2));  
if (!rect2){  
 NSLog(@”Not enough memory.”);  
 exit(EXIT\_FAILURE);  
}  
\*rect2 = rect;  
printf (“%d\n”, rect.size.width);

1. **0**
2. ~~10~~
3. ~~RUNTIME ERROR~~
4. ~~COMPILATION ERROR~~
5. ~~None of the above~~

**Question 16. (General or Views)**

How is a GUI usually created in Cocoa?

1. **With interface builder**
2. By editing xml files manually
3. Programmatically
4. None of the above

**Question 17. (Class Hierarchy)**

Fill the blank.

NSCountedSet : <> : NSObject

1. NSArray : NSClass
2. NSMutableArray : NSArray
3. **NSMutableSet : NSSet**
4. NSSet
5. NSSet : NSArray

**Question 18. (Datatype and Structures)**

What is NSRect?

1. A class
2. An object
3. **A structure**
4. A C built in type
5. An Objective-C built in type

**Question 19. (Threads)**

If you spawn a thread with POSIX thread api, will Cocoa be notified?

1. Yes
2. **No**

**Question 20. (Views)**

What method should be called before you are able to draw outside the drawRect: method of a view?

1. ~~None~~
2. lockView
3. **lockFocus**
4. prepareView
5. None of the above

**Question 21. (Class Hierarchy)**

Fill the blank

NSMutableArray : <> : NSObject

1. NSSet
2. NSCollection
3. **NSArray**
4. NSContainer
5. NSMovableArray

**Question 22. (Notifications)**

Which of the following classes manages the computer’s global notification?

1. NSNotificationCenter
2. **NSDistributedNotificationCenter**
3. NSGlobalNotificationCenter
4. NSSystemNotificationCenter

**Question 23. (Memory Management)**

Is the following code correct?

NSMutableArray \*a = [NSMutableArray array];

[a release];

1. Yes
2. **No**

**Question 24. (Notifications)**

Can NSDistributedNotificationCenter be used to communicate between multiple machines?

1. Yes
2. **No**

**Question 25. (Threads)**

Can you detach threads in Cocoa?

1. **Yes**
2. No

**Question 26. (Memory Management)**

Is the following code correct?

NSMutableArray \*a = [[NSMutableArray new] autorelease];

[a release];

1. **Yes**
2. No

**Question 27. (Datatype and Structures)**

Is the following code valid?

NSSize s = NSMakeSize(10, 10);  
int values[20];  
values[s.height] = 5;

1. **Compile error**
2. Runtime error
3. Valid code

**Question 28. (Notifications)**

What is a notification?

1. A user event
2. A special message type used within the kernel
3. **An object that encapsulates information about an event**
4. None of the above

**Question 29. (General)**

Does Cocoa support 64bits?

1. **Yes**
2. No

**Question 30. (Memory Management)**

In a typical Cocoa application, do you have to manage your runloop yourself?

1. Yes
2. **No**

**Question 31. (Threads)**

Is NSRunLoop thread safe?

1. Yes
2. **No**

**Question 32. (Notifications)**

Can a notified object find out from where the notification is coming? (Sending Object)

1. Yes
2. **No**

**Question 33. (Views)**

What method should be called before you are able to draw in the drawRect: method of a view?

1. **None**
2. lockFocus
3. lockView
4. prepareDrawing
5. None of the above

**Question 34. (Events)**

If you call interpretKeyEvents:, which of the following method is likely to be called?

1. collectEvent:
2. dispatchEvent:
3. sendEvent:
4. **insertText:**
5. None of the above

**Question 35. (Views)**

Is it correct to have sibling views overlapping?

1. Yes
2. **No**

**Question 36. (Threads)**

Can POSIX thread be used in Cocoa?

1. **Yes**
2. No

**Question 37. (Views)**

What is NSViewHeightSizable constant used for?

1. Transparency
2. Scrolling
3. **Autoresizing**
4. Magnification
5. None of the above

**Question 38. (Memory Mangement)**

Which of the following creates an autoreleased array?

1. **[NSMutableArray array];**
2. [NSMutableArray new];
3. [[NSMutableArray alloc] init];

**Question 39. (Memory Management)**

Is the following code correct?

NSMutableArray \*a = [NSMutableArray new];  
[a release];

1. **Yes**
2. No

**Question 40. (General)**

Why is CGFloat recommenced to be used instead of float?

1. They are the same; so it’s done only to make the code look nicer.
2. CGFloat is a special structure used to do arbitrary number computation.
3. **For 64bit compatibility**
4. None of the above

**Question 41. (Views)**

How can you move a view?

1. You cannot
2. By calling move: method
3. **By changing the frame with setFrame:**
4. None of the above

**Question 42. (Resources)**

Can resources be localized?

1. **Yes**
2. No

**Question 43. (General)**

What is a toll-free bridged class?

1. A superclass of another class
2. **A class that can be interchanged with another class bycasting**
3. A wrapper around another class
4. A class with no memory need.
5. None of the above.

**Question 44. (Events)**

Is there a double click event?

1. Yes
2. **No**

**Question 45. (Datatype and Structure)**

Is he following code correct?

NSRect a = NSMakeRect(0, 1, 2, 3) + NSMakeRect(0, 1, 2, 3);

1. Yes
2. **No**

**Question 46. (Class Hierarchy)**

Fill the blank.

NSNotification : <> : NSObject

1. NSEvent
2. NSCenter
3. NSDistributed
4. NSGeneralNotification
5. **Nothing is required to fill the blank**

**Question 47. (Resources)**

Can NSBundle be used to load Java code?

1. **Yes**
2. No

**Question 48. (Views)**

Where is the (0,0) coordinate located on the screen?

1. **top-left**
2. top-right
3. bottom-left
4. bottom-right
5. center

**Question 49. (Datatype and structure)**

Is the following code valid?

NSRect r;  
r.size = NSMakeSize(10, 10);  
r.origin = NSMakePoint(-5, -5);

1. **Yes**
2. No

**Question 50. (Threads)**

What threading API should be used in Cocoa?

1. CFThread
2. pthread
3. pth
4. **NSThread**
5. None of the above

**Question 51. (Notifications)**

What is true regarding notifications?

1. They can be dispatched to only one object
2. **The object posting the notification does not even have to know whether the observer exists**
3. **An object may receive any message you like from the notification center, not just the predefined delegate method**
4. All of the above
5. None of the above

**Question 52. (Datatype and structure)**

Is the following code correct?

- (void)myMethod:(NSString \*\*)s {  
 \*s = [[NSString alloc] init];  
}

1. **Yes**
2. No

**Question 53. (General)**

What is Cocoa?

1. A language
2. A tree
3. A system
4. **A framework**
5. None of the above

**Question 54. (Events)**

Is it possible to create events and dispatch them to the application?

1. **Yes**
2. No

**Question 55. (General)**

Which of the following retrieves the application main bundle?

1. **[NSBundle mainBundle]**
2. [NSApplication mainBundle]
3. [NSApp mainBundle]
4. None of the above

**Question 56. (General)**

What kind of memory management mechanisms can Cocoa uses?

1. **Garbage collection**
2. **Reference counting**
3. **Manual memory management**
4. None of the above

**Question 57. (General)**

Which of the following is a valid Uniform Type Identifier?

1. JPEG
2. .jpg
3. **public.jpeg**
4. image/jpeg
5. .jpeg

**Question 58. (Threads)**

Can you use NSLock on a POSIX mutex?

1. Yes
2. **No**

**Question 59. (Class Hierarchy)**

Fill the blank

NSView : <> : NSObject

1. NSWindow
2. **NSResponder**
3. NSResponder : NSWindow
4. NSRootView
5. NSRoot

**Question 60. (Memory Management)**

Can an object marked for autorelease be retained?

1. **Yes**
2. No