

ICS3C0 – Day 2 – Multiple Choice Exam Review – Jan 2018

Please answer on the scantron card. Use a pencil.

Put your name on the scantron card NOW. Don't wait.

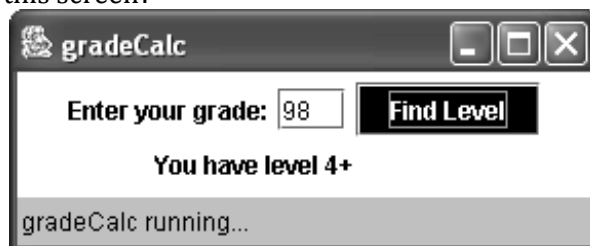
This is due by the end of the period.

Button in your answers carefully. Erase carefully.

If you fail to erase or bubble correctly, your mark will stand.

- Which one is a widget?
(a) int (b) JLabel (c) Touchscreen (d) System.out.println (e) Red
- In which SDLC phase would a programmer make the GUI?
(a) Analysis (b) Design (c) Coding (d) Reflection (e) Maintenance
- Which one is a mutator?
(a) new JLabel (b) getText (c) setText (d) getActionCommand (e) IO.inputInt
- How do you set the size of the screen to 50,60?
(a) `resize(50,60);` (d) `setSize(50.60);`
(b) `screen.setSize(50,60);` (e) `setBackgroundSize(50, 60);`
(c) `screen.setSize(60,50);`
- Which changes the screen's colour to red?
(a) `setBackground(Color.red);` (d) `applet.setBackground(Color.red);`
(b) `setForeground(Color.red);` (e) `init.setBackground(Color.red);`
(c) `screen.setBeackground(Color.red);`
- Which changes a button's font?
(a) `button.setBackground(Color.red);` (d) `button.setFont(new Font("Arial", Font.PLAIN, 20));`
(b) `button.setForeground(Color.blue);` (e) `button.addActionListener(this);`
(c) `button.setActionCommand("click");`
- Which line(s) of code are added to a JButton to make it clickable?
(a) `button.setActionCommand("click");` (d) a and b
(b) `button.addActionListener(this);` (e) all of the above.
(c) `button.setPreferredSize(new Dimension(200, 100));`
- Which change(s) the text on a button in ActionPerformed?
(a) `button.showStatus("You Win!");` (d) a and b
(b) `button.setText("You Win!");` (e) all of the above
(c) `button.setLabel("You Win!");`
- Which makes a new title on the screen?
(a) `JButton title = new JButton ("4 Pics 1 Word");` (d) a and b
(b) `JLabel title = new JLabel ("4 Pics 1 Word");` (e) all of the above
(c) `JTextField title = new JTextField ("4 Pics 1 Word");`
- After you click a button, `e.getActionCommand()` holds:
(a) the JButton's Action Listener
(b) the text on the JButton
(c) the JButton's Action Command
(d) a and c
(e) None of the above

11. You would declare a JLabel globally if:
 (a) You needed to change its text in actionPerformed
 (b) You needed to change its background to red in init
 (c) It had a lot of formatting.
 (d) It was a picture.
 (e) None of the above.
12. Which one is a string used to distinguish between buttons?
 (a) ActionListener (b) ActionCommand (c) actionPerformed (d) ActionEvent
13. Which one watches over a button and triggers an event?
 (a) ActionListener (b) ActionCommand (c) actionPerformed (d) ActionEvent
14. Which one is a method where events are processed?
 (a) ActionListener (b) ActionCommand (c) actionPerformed (d) ActionEvent
15. A _____ can be used to create or display a string.
 (a) JMenu (b) JTextField (c) JRadioButton (d) JCheckBox (e) JSlider
16. Methods that cannot be called on a JLabel include:
 (a) setText (b) setFont (c) setActionCommand (d) setBackground (e) setIcon
17. Which widgets have events?
 (a) JLabel (b) JTextField (c) JButton (d) JTextArea (e) Panel
18. Where is this line of code found: `add (tip);`
 (a) libraries (b) actionPerformed (c) init (d) globally
19. Where is this line of code found: `b1.addActionListener (this);`
 (a) libraries (b) actionPerformed (c) init (d) globally
20. Where is this line of code found: `e.getActionCommand ().equals ("tip me!")`
 (a) libraries (b) actionPerformed (c) init (d) globally
21. Where is this line of code found: `JButton b1 = new JButton ("New Tip");`
 (a) libraries (b) actionPerformed (c) init (d) globally
22. What category of method is `.setText`?
 (a) accessor (b) mutator (c) constructor (d) facilitator
23. What category of method is this line:
`JLabel title = new JLabel ("Click");`
 (a) accessor (b) mutator (c) constructor (d) facilitator
24. What category of method is `e.getActionCommand()`?
 (a) accessor (b) mutator (c) constructor (d) facilitator
25. How many widgets are on this screen?
 (a) 6
 (b) 5
 (c) 4
 (d) 3
 (e) 0



26. Which line of code has an error:
- (a) JButton next = new JButton ("Next screen");
 - (b) next.setActionCommand ("2");
 - (c) next.addActionListener ();
 - (d) next.setForeground(Color.white);
 - (e) next.setBackground(Color.black);

27. Which code has the correct order to make these widgets appear on the screen?

```
JLabel n1 = new JLabel ("Tiger");
JButton n2 = new JButton ("Elephant");
JTextField n3 = new JTextField (6);
```

- (a) add (n3); add (n2); add (n1);
- (b) add(n1); add(n2); add(n3);
- (c) add (n3); add (n1); add (n2);
- (d) add (n2); add (n1); add (n3);

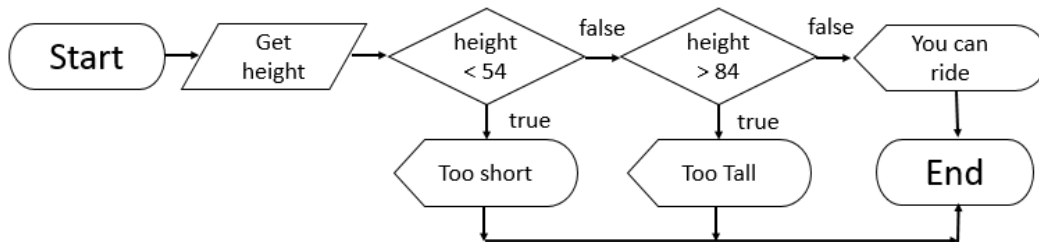


The next three questions refer to this screen:

28. How many widgets are on this screen?
- (a) 4 (b) 5 (c) 6 (d) 10 (e) 2
29. How many actionListeners would be declared in init?
- (a) 0 (b) 1 (c) 2 (d) 3 (e) 4
30. How many JLabels are on this screen?
- (a) 0 (b) 1 (c) 2 (d) 3 (e) 4



For the next three questions, consider this flowchart:



31. Which widget is required for the “get height” parallelogram?
- (a) JLabel (b) JTextField (c) JButton (d) JTextArea (e) Panel
32. Which widget is required for the “you can ride” pencil-shape?
- (a) JLabel (b) JTextField (c) JButton (d) JTextArea (e) Panel
33. Which code construct is required for the “height < 54” diamond?
- (a) loop (b) String (c) main method (d) System.out (e) Boolean expression in an if
34. Why are flow charts useful?
- (a) They provide details about the layout and colour scheme of the screens.
 - (b) They help programmers write comments for their code so debugging is easier.
 - (c) They are used in the Design phase of the PDLC to layout navigations in the program.
 - (d) They help design the details of the code, including input, output and processing.
 - (e) They help the programmer understand the memory structure of Strings and which char is in which location.
35. Which isn't a method in an applet?
- (a) createImageIcon (b) main (c) actionPerformed (d) init

36. Which type of widget is not needed by this tent screen?

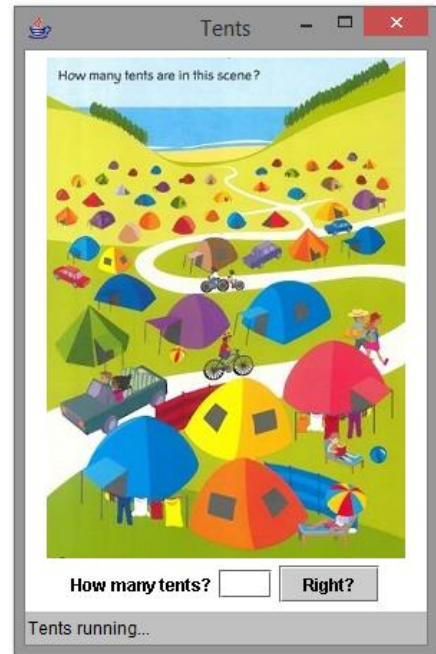
- (a) JTextField
- (b) JButton
- (c) JLabel
- (d) JPicture
- (e) All of the above are needed

37. Which method is not needed to make this tent screen?

- (a) Init
- (b) ActionPerformed
- (c) Main
- (d) CreateImageIcon

38. Which type of widget needs to be global on the tent screen?

- (a) JTextField
- (b) JButton
- (c) JPicture
- (d) Int
- (e) Main



39. When a programmer disables buttons when they should not be clicked, they are using this principle of good user interface design.

- (a) Visually Appealing
- (b) Clear Instructions
- (c) Restricts Input
- (d) Widget Arrangement
- (e) Error Handling

40. When a programmer uses JButtons instead of JTextfields when possible, they are using this principle of good user interface design.

- (a) Visually Appealing
- (b) Clear Instructions
- (c) Restricts Input
- (d) Widget Arrangement
- (e) Error Handling

41. When a programmer provides clear titles on the top of their screens, they are using this principle of good user interface design.

- (a) Visually Appealing
- (b) Clear Instructions
- (c) Restricts Input
- (d) Widget Arrangement
- (e) Error Handling

42. An attack that has never been used before.

- (a) new attack
- (b) zero-day
- (c) novel
- (d) kiddie
- (e) RAM

43. Which might a company ban to keep viruses out of their system?

- (a) Downloading files
- (b) Typing
- (c) Texting
- (d) Playing games
- (e) Using the internet

44. A worm/virus that caused the 2003 power outage.

- (a) Blaster
- (b) Low Ion Orbit
- (c) Love Bug
- (d) Stuxnet
- (e) Duqu

45. The hacker in control of a botnet.

- (a) Herder
- (b) President
- (c) Master
- (d) King-pin
- (e) Roboter

46. A country attacked by the Russian mafia's DDos in 2007.

- (a) USA
- (b) Estonia
- (c) Germany
- (d) Canada
- (e) Finland

47. An attack where a herder targets a website using a botnet.

- (a) Phishing
- (b) Bot-Attack
- (c) Virus
- (d) D-Dos
- (e) Pharming

48. An innocent person who is part of a bot net.

- (a) Victim
- (b) Herder
- (c) Hacker
- (d) Bot
- (e) Watson

49. Why is security important on the internet?
- (a) Some things, like banking information and social media passwords need to be kept secret. We don't want hackers to gain access to them and steal our files, money or on-line presence.
 - (b) If you are careful, you can create a complete secure system that no one can hack. That is very useful.
 - (c) The internet is used for sharing pictures and texts. These things should be distributed securely, so hackers can't read them.
 - (d) Everyone knows how to hack well, so without security, everyone would be able to access all computers.
 - (e) All of the above.
50. The name of the worm that attacked Iran's nuclear program.
- (a) Duqu
 - (b) Love bug
 - (c) Botnet
 - (d) Blaster
 - (e) Stuxnet
51. An organization who was the target of a DDoS in 2016.
- (a) IBM
 - (b) EQAO
 - (c) WonderBread
 - (d) Intel
 - (e) AGO
52. Rules for employees restricting their behavior online.
- (a) Backup
 - (b) Air Gap
 - (c) Virus Scanner
 - (d) Network Use Policy
 - (e) Firewall
53. A security method where all incoming traffic is monitored for viruses.
- (a) Firewall
 - (b) Backup
 - (c) Password
 - (d) Biometrics
 - (e) Audit Trail
54. Why is Binary useful?
- (a) It makes nicer pictures on the screen.
 - (b) It handles decimal numbers (eg. 12.3456) much better than base 10 does.
 - (c) It is easier to store 0 or 1 on hardware (the one is on, the zero is off).
 - (d) ASCII uses it.
 - (e) Control structures and lists require binary to work.
55. The number 22 is 10110. How many bits are needed to store it?
- (a) 22
 - (b) 8
 - (c) 5
 - (d) 2
 - (e) 0
56. You have 3 bytes. How many bits do you have?
- (a) 8
 - (b) 12
 - (c) 24
 - (d) 128
 - (e) 256
57. If you want to store the number 35 in binary, how many bits do you need?
- (a) 6
 - (b) 7
 - (c) 8
 - (d) 9
 - (e) 10
58. If you want to store the number 130 in binary, how many bits do you need?
- (a) 4
 - (b) 5
 - (c) 6
 - (d) 7
 - (e) 8
59. What is the uppercase letter that corresponds with this ASCII 1100011?
- (a) A
 - (b) B
 - (c) C
 - (d) D
 - (e) E
60. What ASCII letter is this? 1000101
- (a) E
 - (b) e
 - (c) F
 - (d) D
 - (e) d
61. Is this an uppercase or lowercase letter? 1000101
- (a) Uppercase
 - (b) Lowercase
 - (c) Neither
 - (d) Both
62. Why are memory diagrams useful for Strings?
- (a) They provide details about the layout and colour scheme of the screens.
 - (b) They help programmers write comments for their code so debugging is easier.
 - (c) They are used in the Design phase of the PDLC to layout navigations in the program.
 - (d) They help design the details of the code, including input, output and processing.
 - (e) They help the programmer understand the memory structure of Strings and which char is in which location.

63. Why is Caesar Shift easy to hack?
- (a) Quantum computing has been developed to break the code.
 - (b) There are one 26 possible keys, so a human can try them all easily.
 - (c) It can be typed on a keyboard.
 - (d) ASCII uses it.
 - (e) It uses ifs and loops to create it.
64. Why is ASCII useful?
- (a) It encodes English letters into binary so computers can understand them.
 - (b) It is encryption.
 - (c) It is useful for security to prevent hackers gaining access to the files.
 - (d) It is a form of networking, allowing the transmission of data.
 - (e) It is used in Boolean expressions to determine if they are true or false.
65. What does the 32-bit in ASCII tell you?
- (a) Uppercase or not
 - (b) Unicode or not
 - (c) Letter or not
 - (d) Position in alphabet
 - (e) Day of the week
66. Which airline-related profession might involve fixing computers?
- (a) Pilot
 - (b) Airline Attendant
 - (c) Air Traffic Control
 - (d) Mechanic
 - (e) Meteorologist
67. What is `c.length()`? `String c = "cat";`
- (a) 0
 - (b) 1
 - (c) 2
 - (d) 3
 - (e) 4
68. What is `c.charAt(1)`? `String c = "cat";`
- (a) c
 - (b) a
 - (c) t
 - (d) 1
 - (e) error
69. What is `c.charAt(5)`? `String c = "cat";`
- (a) c
 - (b) a
 - (c) t
 - (d) 5
 - (e) error
70. What is `c.charAt(c.length()-1)`? `String c = "cat";`
- (a) c
 - (b) a
 - (c) t
 - (d) 3
 - (e) error
71. What is `c.replace('a','e')`? `String c = "cat";`
- (a) aea
 - (b) cee
 - (c) cet
 - (d) ect
 - (e) error
72. What is `c.substring(0,1)`? `String c = "cat";`
- (a) c
 - (b) ca
 - (c) cat
 - (d) a
 - (e) at
73. What is `c.substring(0,2)`? `String c = "cat";`
- (a) c
 - (b) ca
 - (c) cat
 - (d) a
 - (e) at
74. If `a` is "cat", evaluate `a.equals("DOG")`.
- (a) true
 - (b) false
75. If `a` is "cat", evaluate `!a.equals("cat")`.
- (a) true
 - (b) false
76. If `a` is "cat", evaluate `a.equals("cat")`.
- (a) true
 - (b) false
77. If `a` is "cat", evaluate `a.equalsIgnoreCase("CAT")`.
- (a) true
 - (b) false
78. If `a` is "cat", evaluate `a.compareTo("zebra") > 0`.
- (a) true
 - (b) false

79. If a is "cat", evaluate `a.compareTo("bat") > 0`.
(a) true (b) false
80. If a is "cat", evaluate `a.compareTo("kangaroo") < 0`.
(a) true (b) false
81. Which is false?
(a) The first number in the substring is the position of the starting character.
(b) The second number in the substring is the position of the ending character.
(c) The second number in the substring is the position AFTER the ending character.
(d) To replace one character with another in a String, use the replace function.
(e) Strings are a collection of characters.
82. Which is true?
(a) substring is a function that can pull out part of a String.
(b) To test if two Strings a and b are equal, you type `a == b`
(c) The number of characters in a String are found using the size function.
(d) Strings are a collection of doubles.
(e) None of the previous are true.
83. Define plaintext.
(a) Writing that is easily read.
(b) Writing that is encrypted.
(c) Writing that is sent between you and your bank using HTTPs on the internet.
(d) Writing that is used to log you into a secure system.
(e) None of the previous.
84. Define ciphertext.
(a) Encrypted writing.
(b) Decrypted writing.
(c) Writing that anyone can read without the key.
(d) Writing that is used in the newspaper.
(e) Writing that is used in emails.
85. Define encryption.
(a) Translating plaintext into ciphertext
(b) Translating ciphertext into plaintext
(c) Sending a message over the internet
(d) Writing a message in lemon juice.
(e) None of the previous.
86. Define decryption.
(a) Translating plaintext into ciphertext
(b) Translating ciphertext into plaintext
(c) Sending a message over the internet
(d) Hacking into a database.
87. Define key. (in encryption)
(a) Details about how the message is encrypted.
(b) The hacker's password into the database.
(c) The encrypted message.
(d) The decrypted message.
(e) All of the previous.

88. Who uses encryption?
(a) You do when you use snapchat.
(b) YouTube does when they want to stop sending out a video to a certain area.
(c) Your bank when sending you details about your bank statement on-line.
(d) Instagram does when you are sending pictures.
(e) None of the above.
89. Decrypt the following: fodszejpo
(a) decryption (b) computers (c) character (d) encryption (e) statements
90. Decrypt the following: rorrim
(a) victim (b) Watson (c) duqu (d) stuxnet (e) mirror
91. Decrypt the following: igpay atinlay
(a) dog treat (b) d-dos attack (c) anonymous (d) pig latin (e) deep blue
92. Encrypt the following using pig latin: exams.
(a) smaxe (b) examslay (c) xamseay (d) 5 23 1 14 24 (e) kadfax
93. Decrypt the following: 12 5 20 20 5 18
(a) kitten (b) butter (c) letter (d) middle (e) weta digital
94. Which String function translates all of the characters to capitals?
(a) toLowerCase (b) charAt (c) substring (d) toUpperCase (e) length
95. Which String function pulls out a portion of a larger String?
(a) toLowerCase (b) charAt (c) substring (d) toUpperCase (e) length
96. Which String function pulls out a single letters?
(a) toLowerCase (b) charAt (c) substring (d) toUpperCase (e) length
97. Which String function finds the size of the String?
(a) toLowerCase (b) charAt (c) substring (d) toUpperCase (e) length
98. Which String function translates all of the characters to lower case?
(a) toLowerCase (b) charAt (c) substring (d) toUpperCase (e) length
99. Why are String functions useful?
(a) They are ready made functions that allow you to pull apart a String, change it and test things about it.
(b) They can be used to make a game like 4Pics1Word.
(c) They can be used to re-format a name or address.
(d) We store lots of data in Strings and it is useful to be able to change it.
(e) All of the above.
100. Why should you learn to program?
(a) Because the singularity is coming and you want to be able to communicate with our new masters.
(b) Because it is a dying art like knitting and cooking and it needs preserving.
(c) Because computers are being used everywhere and it will be useful in your future jobs.
(d) Because there are videos that tell you that you should on the internet.
(e) Because Ms. Gorski says so.