**Module 15. GUI Programming**

**TRUE/FALSE**

1. Python does not have GUI programming features built into the language itself.

Answer: True

1. Programs that use tkinter do not always run reliably in IDLE.

Answer: True

1. A root widget's destroy method can be used as a callback function for a Quit button.

Answer: True

1. The pack() method is used to organize widgets in blocks before placing them in the parent widget.

Answer: True

1. tkinter is the only module available for GUI programming in Python.

Answer: False

1. The grid() method arranges widgets in a table-like structure within the parent widget.

Answer: True

1. The place() method is used to position widgets at a specific location within the parent widget.

Answer: True

1. The Label widget can display both text and images.

Answer: True

1. You can create multiple main windows using tkinter.

Answer: False

1. The Canvas widget is used for drawing shapes and handling graphical content.

Answer: True

1. The Entry widget allows multi-line text input.

Answer: False

1. You can set a default value for an Entry widget.

Answer: True

1. The Radiobutton widget allows multiple selections at once.

Answer: False

1. Checkbutton widgets can be used to toggle between two states: on and off.

Answer: True

1. The Listbox widget can only handle single selections.

Answer: False

**MULTIPLE CHOICE**

1. What are the items that appear on the graphical interface window called?

a. buttons

b. icons

c. widgets

d. graphical elements

Answer: c. widgets

1. A \_\_\_\_\_\_\_\_\_\_ program is an event-driven program.

a. GUI

b. command line

c. procedural

d. modular

Answer: a. GUI

1. Which method is used to arrange widgets in a table-like structure within the parent widget?

a. pack()

b. grid()

c. place()

d. organize()

Answer: b. grid()

1. Given the following code, which line defines the size of the window?

*import tkinter*

*class myShape:*

*def \_\_init\_\_(self):*

*self.main\_window = tkinter.Tk()*

*self.canvas = tkinter.Canvas(self.main\_window,*

*width=200, height=200)*

*self.canvas.create\_rectangle(30,30, 175, 175)*

*self.canvas.pack()*

*tkinter.mainloop()*

*shape = myShape()*

a. self.main\_window = tkinter.Tk()

b. self.canvas = tkinter.Canvas(self.main\_window,width=200, height=200)

c. self.canvas.create\_rectangle(30,30, 175, 175)

d. shape = myShape()

Answer: b. self.canvas = tkinter.Canvas(self.main\_window,width=200, height=200)

1. What widget is used to create a clickable element that triggers an action when activated?

a. Label

b. Button

c. Canvas

d. Frame

Answer: b. Button

1. Which method would you use to draw a rectangle on a Canvas widget?

a. create\_rectangle()

b. create\_line()

c. create\_oval()

d. create\_polygon()

Answer: a. create\_rectangle()

1. The StringVar class is used with which of the following widgets to manage and display text?

a. Button

b. Entry

c. Label

d. Canvas

Answer: c. Label

1. Which option can be used with the pack() method to position widgets in the parent widget?

a. ipadx

b. grid

c. relief

d. side

Answer: d. side

1. What widget is used to display a list of selectable items?

a. Button

b. Listbox

c. Entry

d. Label

Answer: b. Listbox

1. Which of the following methods is used to get the text from an Entry widget?

a. get\_text()

b. retrieve()

c. fetch()

d. get()

Answer: d. get()

1. The Checkbutton widget is used to:

a. Allow multiple selections from a list

b. Toggle between two states

c. Create a clickable button

d. Display a single line of text

Answer: b. Toggle between two states

1. Which method is used to delete text from an Entry widget?

a. delete()

b. remove()

c. clear()

d. erase()

Answer: a. delete()

1. To display an image on a Label widget, you would use which attribute?

a. text

b. image

c. picture

d. content

Answer: b. image

1. Which tkinter widget is used to create a menu button that reveals a menu of choices when clicked?

a. Menu

b. Menubutton

c. Button

d. OptionMenu

Answer: b. Menubutton

1. In tkinter, what is the purpose of the mainloop() method?

a. To initialize the main window

b. To keep the window open and responsive

c. To create widgets

d. To terminate the program

Answer: b. To keep the window open and responsive

1. Which tkinter method is used to place widgets at a specific position within the parent widget?

a. pack()

b. grid()

c. place()

d. position()

Answer: c. place()

1. What is the primary purpose of the Frame widget?

a. To display text

b. To draw shapes

c. To group and organize other widgets

d. To create buttons

Answer: c. To group and organize other widgets

1. Which method would you use to draw a circle on a Canvas widget?

a. create\_circle()

b. create\_oval()

c. create\_polygon()

d. create\_arc()

Answer: b. create\_oval()

1. Which of the following arguments specifies the width of a border in a Label widget?

a. relief

b. borderwidth

c. padding

d. highlightthickness

Answer: b. borderwidth

1. What method is used to add a scrollbar to a Listbox widget?

a. set\_scrollbar()

b. attach\_scrollbar()

c. add\_scrollbar()

d. config()

Answer: d. config()

1. Which tkinter widget would you use to create a multi-line text input field?

a. Entry

b. Text

c. Label

d. Canvas

Answer: b. Text

1. What does the command option in a Button widget specify?

a. The text to be displayed on the button

b. The function to be called when the button is clicked

c. The size of the button

d. The color of the button

Answer: b. The function to be called when the button is clicked

1. Which method is used to run the tkinter event loop?

a. run()

b. start()

c. mainloop()

d. execute()

Answer: c. mainloop()

1. The Label widget in tkinter is used to:

a. Create a button

b. Display text or images

c. Draw shapes

d. Input text

Answer: b. Display text or images

1. Which option is used to set the initial selection for a Radiobutton widget?

a. select()

b. set()

c. default()

d. choose()

Answer: b. set()