(2½ Hours) [Total Marks: 75]

N.B.: 1) **All** questions are **compulsory**.
2) **Figures** to the **right** indicate **marks**.
3) Illustrations, in-depth **answers** and **diagrams** will be appreciated.
4) Mixing of **sub-questions** is **not allowed**.

Q. 1 **Attempt all. (Each of 5 marks)** **(15M)**

(a) **Multiple Choice Questions (Choose the correct alternative.)** **(5M)**

(i) The _____ method is used to display the current working directory.
   (a) getcwd()   (c) mkdir()
   (b) chdir()   (d) rmdir()

(ii) **Grid is used for _____.**
   (a) Positioning widgets at absolute locations.
   (b) Arranging widgets.
   (c) Packing widgets into a cavity.
   (d) All ot the above.

(iii) **Python exceptions are caught by the _____ keyword.**
   (a) catch   (c) try
   (b) except   (d) throw

(iv) **This method binds the socket to address.**
   (a) socket.socket()   (c) socket.bind(address)
   (b) socket.accept()   (d) socket.listen()

(v) **The _____ is a standard tkinter widget used to implement one of many selections buttons.**
   (a) Option button   (c) Radio Button
   (b) CheckBox Button   (d) None of the mentioned

(b) **Fill in the blanks.** **(5M)**
{TCP/IP, UDP, SMTP, FTP, os.remove('file'), os.delete('file'), readline(), readlines(), focus, create }
(i) To draw things in the canvas, use the _____ methods to add new items.
(ii) _____ function is used to read single line from file.
(iii) _____ deletes a file.
(iv) _____ protocol is used to send mail.
(v) Connected less communication can be establish using _____.

(c) **Short Answers Write answers in one or two lines.** **(5M)**
(i) Finally clause
(ii) Attributes of file object
(iii) mysql connector
(iv) socket() function
(v) Connection oriented communication in python

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Q.2 Attempt the following:(ANY THREE) (Each of 5 marks)   **(15M)**
  (a) Write a python program to read contents of 'first.txt' file and write same content in 'second.txt' file.
  (b) What are various modes of file object? Explain any five.
  (c) Define Iterator with example.
  (d) Explain exception handling with example using try, except, raise keywords.
  (e) Give syntax and example of following functions.
    (i)   mkdir
    (ii)   chdir
  (f) Differentiate between match() and search() function. Explain with example.

Q.3 Attempt the following:(ANY THREE) (Each of 5 marks)   **(15M)**
  (a) What is GUI programming? Write advantage and disadvantage.
  (b) Write a python program to accept a number from user on entry box. Display whether entered number is even or odd on message box as user clicks on show button.
  (c) Explain any five options of pack() method.
  (d) Discuss event handling formats. (any five)
  (e) List the widgets which provided by tkinter module. Explain any four.
  (f) Write a python program to display five graphical shapes on Canvas.

Q. 4 Attempt the following:(ANY THREE) (Each of 5 marks)   **(15M)**
  (a) Write a python program to create connection oriented server program.
  (b) How to read properties of URL? Explain it with example.
  (c) What is database connectivity in Python? Explain.
  (d) Give a short note on SMTP. Explain how to create SMTP object in python.
  (e) Explain exception in database connectivity in python.
  (f) Establish a connection between python and database and write a python to display all records from Employee table(Empno, Empname, Dept, Salary). Assume records are already inserted in table.

Q. 5 Attempt the following:(ANY THREE) (Each of 5 marks)   **(15M)**
  (a) Explain transaction with rollback and commit in python.
  (b) What is regular expression? State and explain regular expression patterns. **(any four)**
  (c) How to use fonts and colours in python? Specify example.
  (d) Which functions are used to find file position? Explain with example.
  (e) Write a short note on Layout Manager.

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