

(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 5Marks)

(15M)

(a) Multiple Choice Questions

- 1) The _____ method is used to determine current position within file.
a) seek() b) tell() c) pos() d) cur_pos()
- 2) _____ method is used to create our own iterator.
a) _iter_() b) _next_() c) _create_iter() d) a and b.
- 3) _____ is a base class for all the numerical calculation.
a) ArithmeticError b) ZeroDivisionerror()
c) OverflowError() d) StandardError()
- 4) _____ is a powerful tool in text processing toolbox.
a) TextTool b) Toolbox c) Regular expression d) Text Editor
- 5) _____ are the endpoints of bidirectional communication channel
a) server b) client c) network d) sockets

(b) Fill in the blanks

(remove, \$ and (), simple mail transfer protocol, wb+, ab+, del, * and ?, socket, URL)

- 1) _____ mode is used to open file for both read and write operation.
- 2) The _____ method is used to delete file.
- 3) Regular expression uses _ and _ wildcard characters.
- 4) _____ is a protocol which handles sending e-mail.
- 5) _____ is a software abstraction of a physical space through which a client and a server can send messages.

(c) Short Answers

- 1) What are the attributes of file object?
- 2) What is the use of pack method?
- 3) What is a modifier in regular expression?
- 4) What is the use of compilation flag?
- 5) Explain search () method.

Q. 2 Attempt the following (Any THREE)(Each of 5Marks)

(15M)

- (a) Explain various types of file modes.
- (b) Explain Iterators and their problem solving applications.
- (c) What is an exception? What are the various keywords to handle exceptions?
- (d) What are the various types of regular expressions and explain it.
- (e) Write a source code in python to count frequency of words in a file.
- (f) Write a source code in python to demonstrate match function

Q. 3 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- (a) What is GUI? What are the advantages of GUI?
- (b) Write a short note on GUI library.
- (c) What is the use of listbox widget? Give an example to add elements to listbox.
- (d) Write a note on Canvas widget.
- (e) Write a source code in python to create login screen.
- (f) Write a source code in python to draw an oval filled with red color.

Q. 4 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- (a) How will you install mysql connector in python?
- (b) How to execute different types of statements. Explain with an example.
- (c) What is transaction? How will you execute transactions in python?
- (d) What is exception? Explain any 4 database exceptions.
- (e) Write a source code in python to read single and multiple results of query execution.
- (f) Write a source code in python where server sends current time string to the client.

Q. 5 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- (a) Explain directory methods in python.
- (b) Explain bind method with an example.
- (c) Write a source code in python to send email and read contents of URL.
- (d) Explain regular expression with example.
- (e) Explain message widget with an example.