CHAPTER- 1 PYTHON BASICS

1. Which is the correct operator for power(x^y)?
a) X^y   b) X**y   c) X^^y   d) None of the mentioned

2. Which one of these is floor division?
a) /   b) //   c) %   d) None of the mentioned

3. What is the order of precedence in python?
i) Parentheses   ii) Exponential   iii) Multiplication   iv) Division
v) Addition   vi) Subtraction
a) i,ii,iii,iv,v,vi   b) ii,i,iii,iv,v,vi
c) ii,i,iv,iii,v,vi   d) i,ii,iii,iv,vi,v

4. Mathematical operations can be performed on a string.
a) True   b) False

5. Operators with the same precedence are evaluated in which manner?
a) Left to Right   b) Right to Left
c) Can't say   d) None of the mentioned

6. What is the output of this expression, 3*1**3?
a) 27   b) 9   c) 3   d) 1

7. Which one of the following has the same precedence level?
a) Addition and Subtraction
b) Multiplication, Division and Addition
c) Multiplication, Division, Addition and Subtraction
d) Addition and Multiplication

8. The expression Int(x) implies that the variable x is converted to integer.
a) True   b) False

9. Which one of the following has the highest precedence in the expression?
a) Exponential   b) Addition
c) Multiplication   d) Parentheses

10. Which of the following commands will create a list?
a) list1 = list()   b) list1 = []
c) list1 = list([1, 2, 3])   d) all of the mentioned

11. What is the output when we execute list("hello")?
a) ['h', 'e', 'l', 'l', 'o']   b) ['hello']
c) ['llo']   d) ['olleh']

12. Suppose listExample is ['h','e','l','l','o'], what is len(listExample)?
a) 5   b) 4   c) None   d) Error

13. Suppose list1 is [2445,133,12454,123], what is max(list1)?
a) 2445   b) 133   c) 12454   d) 123

14. Suppose list1 is [3, 5, 25, 1, 3], what is min(list1)?
a) 3   b) 5   c) 25   d) 1

15. Suppose list1 is [1, 5, 9], what is sum(list1)?
a) 1   b) 9   c) 15   d) Error

16. To shuffle the list(say list1) what function do we use?
a) list1.shuffle()   b) shuffle(list1)
c) random.shuffle(list1)   d) random.shuffleList(list1)

17. Suppose list1 is [4, 2, 2, 4, 5, 2, 1, 0], Which of the following is correct syntax for slicing operation?
a) print(list1[0])   b) print(list1[:2])
c) print(list1[:-2])   d) all of the mentioned

18. Suppose list1 is [2, 33, 222, 14, 25], What is list1[-1]?
a) Error   b) None   c) 25   d) 2

19. Suppose list1 is [2, 33, 222, 14, 25], What is list1[:-1]?
a) [2, 33, 222, 14]   b) Error   c) 25   d) [25, 14, 222, 33, 2]

1. What is the maximum possible length of an identifier?
a) 31 characters   b) 63 characters   c) 79 characters   d) none of the mentioned
2. Which of the following is invalid?
a) _a = 1   b) __a = 1   c) __str__ = 1   d) none of the mentioned

3. Which of the following is an invalid variable?
a) my_string_1   b) 1st_string   c) foo   d) _

4. Why are local variable names beginning with an underscore discouraged?
a) they are used to indicate a private variables of a class
b) they confuse the interpreter
c) they are used to indicate global variables
d) they slow down execution

5. Which of the following is not a keyword?
a) eval   b) assert   c) nonlocal   d) pass

6. All keywords in Python are in _____
a) lower case   b) UPPER CASE
c) Capitalized   d) None of the mentioned

7. Which of the following is true for variable names in Python?
a) unlimited length
b) all private members must have leading and trailing underscores
c) underscore and ampersand are the only two special characters allowed
d) none of the mentioned

8. Which of the following is an invalid statement?
a) abc = 1,000,000   b) a b c = 1000 2000 3000
c) a,b,c = 1000, 2000, 3000   d) a_b_c = 1,000,000

9 Which of the following cannot be a variable?
a) __init__   b) in   c) it   d) on

10. What is answer of this expression, 22 % 3 is?

A. 7   B. 1   C. 0   D. 5

11. What is the output of this expression, 3*1**3?

A. 27   B. 9   C. 3   D. 1

12. Which of the following will run without errors ?

A. round(45.8)   B. round(6352.898,2,5)

C. round()   D. round(7463.123,2,1)

13. What dataype is the object below ?

L = [1, 23, 'hello', 1].

A. list   B. dictionary   C. array   D. tuple

14. What does --------- 5 evaluate to?

A. +5   B. -11   C. +11   D. -5

15. What is the output of the following code ?
example = "snow world"
example[3] = 's'
print (example)

    A. snow   B. snow world   C. Error   D. snos world

16. What is the output of "hello"+1+2+3 ?

A. hello123   B. hello   C. Error   D. hello6

17 What is the output of the following?

i = 2
while True:
    if i%3 == 0:
        break
    print(i)
    i += 2

A. 2 4 6 8 10 …   B. 2 4   C. 2 3   D. error

18 What is the output of the following?

x = "abcdef"
i = "a"
while i in x:
    x = x[:-1]
    print(i, end = " ")

A. iiiiii   B. a aaaaa   C. a aaaa   D. none of the mentioned

19. What is the output of the following?
x = "abcdef"
i = "i"
while i in x:
    print(i, end=" ")

A. no output   B. iiiiii …   C. a b c d e f   D. abcdef

20. What is the output of the following?
x = 'abcd'
for i in x:
    print(i.upper())

- A. a b c d

- B. A B C D

- C. a B C D

- D. error

21. What is the output of the following?

```
x = 'abcd'
for i in range(len(x)):
    x[i].upper()
print (x)
```

A. abcd   B. ABCD   C. error   D. none of the mentioned

22. What is the output of the following?

```
i = 2
while True:
if i%3 == 0:
break
print(i)
i += 2
```

A. 2 4 6 8 10 …   B. 2 4   C. 2 3   D. error

23. What is the output of the following?

```
x = "abcdef"
i = "a"
while i in x:
    x = x[:-1]
    print(i, end = " ")
```

- A. iiiiii   B. a aaaaa

- C. a aaaa   D. none of the mentioned

24. What is the output of the following?

```
x = "abcdef"
i = "i"
while i in x:
    print(i, end=" ")
```

- A. no output   B. iiiiii   C. a b c d e f   D. abcdef

25. What is the output of the following?

```
x = 'abcd'
for i in x:
print(i.upper())
```

A. a b c d   B. A B C D   C. a B C D   D. error

26. Suppose list1 is [3, 5, 25, 1, 3], what is min(list1) ?

A. 3   B. 5   C. 25   D. 1

27.Suppose list1 is [1, 3, 2], What is list1 * 2 ?

A. [2, 6, 4].   B. [1, 3, 2, 1, 3]

C. [1, 3, 2, 1, 3, 2] .   D. [1, 3, 2, 3, 2, 1]

28.What is the output when the following code is executed ?

"Welcome to Python".split()

A. ["Welcome", "to", "Python"].   B. ("Welcome", "to", "Python")

C. {"Welcome", "to", "Python"}   D. "Welcome", "to", "Python"

7. What will be the output?

names1 = ['Amir', 'Bala', 'Charlie']
names2 = [name.lower() for name in names1]

print(names2[2][0])

- A. None   B. a

- C. b   D. c

8. What will be the output?
values = [[3, 4, 5, 1], [33, 6, 1, 2]]

v = values[0][0]
for lst in values:
    for element in lst:
        if v > element:
            v = element
 print(v)

- A. 1   B. 3

- C. 5   D. 6

What is the output?

d = {"john":40, "peter":45}
d["john"]

- A. 40   B. 45

- C. "john"   D. "peter"

CHAPTER 2: FUNCTIONS

1. A group of statements that exists within a program for the purpose of performing a specific task is a _____.
2. A _____ is a file containing python definition and statements.
3. The significance of using functions is_____.
4. We_____the function to execute it.
5. A _____is a variable that is created inside a function.
6. A_____is the part of a program in which a variable can be accessed.
7. An_____is a piece of data that is sent into a function.
8. A variable that is visible to every function in a program file is a _____.
9. A function definition in python always begins with the keyword _____.
10. The two statements used for importing modules in python are_____ and _____.
11. Which function converts integers and strings to float
    (a) Float   (b)   double (c)   bool   (d) all of these
12. A module is:
    (a) File   (b)   package(c)   function   (d)   none of these
13. Ceil() is available in module:
    (a) Random   (b)   math (c)   string   (d)   none of these
14. UDF stands for:
    (a) User declared function   (b) user defined function   (c) both a&b   (d) none
15. . If return statement is not used inside the function, the function will return:
    a) 0   b) Error! Function in Python must have a returnstatement
    c)   None object   d) an arbitrary object

CHAPTER 3
USING PYTHON LIBRARIES

1. Commonly used modules that contain source code are called
   (a) Libraries (b) Namespace (c) Main Module (d) None of these
2. Which keyword is used to use the functions of a module .
   (a) namespace (b) import (c) package (d) all of these
3. Which keyword is used to get selected number of functions from a library
   (a) for (b) from (c) use (d) none of these
4. Python provides _____ to define the scope of a function or variable
   (a) Package (b) Namespace (c) Scope (d) none of these
5. The following namespaces are provided by python
   (a) Local (b) Global (c) Built-in (d) All of these
6. The keyword used to mention the alias name is
   (a) like (b) as (c) both of these (d) none of these
7. The _____ file is required to be created to make python treat the directory as package.
8. The steps required to create a package in python is _____ and _____
9. Which variable tells the interpreter where to locate the module.
   (a) PYTHONPATH (b) PATH (c) PYPATH (d) None of these
10. Which of the following functions belong to date class of datetime module.
    (a) today() (b) now() (c) year()   (d) hour()
11. Which of the following functions belong to time class of datetime module.
    (a) today() (b) now() (c) year()   (d) hour()
12. Which of the following statements are correct.
    (a) import m1.m2.m3 (b) from m1 import sum   (c) from m1 import * (d) all of these
13. Which keyword is used for referring to global variables
    (a) GLOBAL (b) global (c) Global (d) none of these
14. randint belongs to which module
    (a) string (b) datetime (c) random (d) stdlib
15. Python resolves the scope of a name related to namespace using which rule .
    (a) LEGB (b) BGEL (c) LBGE (d) none of these
16. Which functions belong to math module
    (a) sqrt() (b) ceil() (c) log10 (d) all of these
17. Shuffle function belongs to _____ module.
18. Which function belongs to datetime module
    (a) shuffle (b) random() (c) hour() (d) none of these
19. A module contains _____ and _____ modules
20. _____ are the triple quoted strings in python.

CHAPTER 4
DATA FILE HANDLING

1. There are two types of files _____ and _____.
2. The type of file which stores images, graphics is
   (a) text file (b) binary file (c) both files (d) none of these

3. Open() function takes two parameters. Both parameters are _____ and _____
4. The mode in which we can read as well as write the content in a file.
   (a) rb+ (b) w+ (c) r+ (d) all of these
5. The content of the file does not get erased when we use the following mode.
   (a) r+ (b) wb+ (c) a (d) none of these
6. The following file mode will store the content in a binary file
   (a) rb+ (b) a+ (c) a (d) none of these
7. The _____ function of file object flushes the unwritten content to a file.
8. The function to read one line at a time from a file is _____
9. The function to read some number of characters from a file is
   (a) read(n) (b) readline(n) (c) readlines(n) (d) none of these
10. The function to write multiple lines at a time is _____
11. The statement used to group multiple file operations in one block is
    (a) for (b) while (c) with (d) all of these
12. _____ refers to process of converting a structure to a byte stream
13. Which function is used to write the object in a binary file
    (a) load (b) dump (c) pickle (d) all of these
14. Which of the following statements are correct:
    (a) dump(object, fileobject)   (b) dump(fileobject, object) (c) load() (d) all of these
15. The function to get the current working directory is :
    (a) getcwd()   (b) cwd() (c) getcwdir() (d) none of these
16. The following are the standard file streams
    (a) sys.stdin (b) sys.stdout (c) sys.stderr (d) all of these
17. Text files stores information in which format
    (a) ASCII (b) UNICODE (c) both a and b (d) none of these
18. The special character to represent the end of the line is ____
19. Which function breaks the link of the file_object
    (a) flush() (b) close() (c) file() (d) none of these
20. The path which is with respect to the current directory is :
    (a) Absolute path (b) relative path (c) respective path (d) all of these

Chapter 5: programming efficiency

1. Performance is _____proportional to the wall clock time.

2. The amount of time required to execute the algorithm is known as_____.

3. Efficiency can be measured on the basis of number of _____.

4. Binary search is _____efficient than _____.

5. An algorithm can have different_____,_____ and average case behaviours.

6. Recursive operations are more _____than sequential programs.

Chapter6: Data structure

1. Stack is a type of _____.

2. Stack is based on _____technique.

3. Stack performs _____ and_____ operations.

4. Stack can have _____conditions.

5. For deleting an element from stack which function is used?

   (a) Pop   (b)   del   (c)   delete (d)   none

6. Queue is based on:

   (a) LIFO   (b) FIFO   (c) both a and b   (d) none

7. _____end is used to add element in a queue.

8. _____end is used to delete an element from a queue.

9. Stack and queue can be implemented by _____ways.

   (a) 4   (b) 2   (c) 3   (d) 1

10. Reversing a word includes:

    (a) Stack   (b)queue   (c) both a and b   (d) none

Chapter 7: Data visualization

1. Matplotlib is a python 2D _____ plotting library which produces publication quality figures.

2. A plot is a _____technique for representing a data set, usually as a graph, showing the relationship between two or more variables.

3. Which is the attribute of plot().

   a) X axis   (b) y axis   (c) color   (d) all of these

4. To set the title,_____attribute is used.

5. To present a chart which function is used?

   (a) Display   (b)show   (c) both a &b (d) none

6. To plot a horizontal bar chart, _____function is used.

7. Arrange() is used to _____.

8. Xticks and yticks are ysed to provide_____.

9. Explode () is an attribute of :

   (a) Bar chart   (b) pi chart   (c) line chart   (d) none

Chapter no:8 Networking

1._____is a network to connect devices within a site in a small area.

    (a) LAN   (b) WAN   (c) PAN   (d) none of these

2.protocol used for sending mails.

(a) SMTP   (b) POP   (c)IMAP   (d) Email

3.Which device is used for connecting networks using different protocol suite.

(a) Repeater   (b) Router   (c) Gateway (d) Switch

4. The protocol which provides secured connection

(a) FTP   (b)HTTP   (c) HTTPS   (d) TELNET

5. The protocol to connect to a wired network using Wi-Fi standard.

(a) 4G   (b) WAP   (c) TDMA   (d) VoIP

6. IP address is the string of____ hexadecimal numbers

(a) 4   (b) 5   (c)3   (d) any of these

7.URL defines the following

(a) protocol   (b) host computer   (c) port   (d) all of these

8.____ helps a user to login to a remote computer

(a) FTP   (b) TELNET   (c) VoIP   (d) HTTP

9.IMAP stands for

(a) Internet message Access Protocol   (b) Internet Mail Access Protocol

(c) Internet mail across protocol   (d) none of these

10. The protocol to send digitize and compress voice to send is

(a) VoIP   (b) HTTP   (c) FTP   (d) ICMP

11. _____ technology is used for wireless local area networking

(a) Wi-Fi   (b) WiMAX   (c) Satellite   (d) All of these

12.The protocol used for transferring documents / files from source to destination is

(a) HTTP   (b) FTP   (c) TELNET   (d) VoIP

13. ____ provides internet based storage and processing

(a) TDMA   (b) Cloud   (c) TELNET   (d) None

14._____ is the number of bits transmitted during one second.

(a) baud rate   (b) data transfer rate (c) cladding   (d) all of these

15.VoLTE is provided by

(a) 2G   (b) 4G   (c) 5G   (d) Both b and c

16._____ is a network of physical objects with network connectivity

(a) cloud   (b) IoT   (c) IaaS   (d) protocol

17. _____ has the highest data transfer capacity

(a) Coaxial cable   (b) Optical fibre   (c) twisted pair   (d) none of these

18._____ provides a line of sight transmission

(a) Radio wave   (b) Infra red   (c) Wi-Fi   (d) none of these

19. there is no attenuation in the following media

(a) coaxial cable   (b) twisted pair (c) optical fibre   (d) radio wave transmission

20. The network device to regenerate the signal is

(a) Bridge   (b) Repeater   (c) Router   (d) All of these

1. The following are the characteristics of DJANGO

   (a) It is free (b) It is a web framework (c) it is open source (d) all of these

2. Web framework helps to develop

   (a) web application (b) web API (c) web service (d) all of these

3. Which of the following are the client side scripting language

   (a) Javascript (b) Perl (c) ASP.NET (d) all of these

4. Which of the following are the web framework

   (a) DJANGO (b) Zend (c) RUBY (c) none of these

5. DJANGO supports

   (a) no-sql databases (b) ORM (c) cross platform (d) all of these

6. In MVC model , the component which deals with databases is:

   (a) Model (b) View (c) controller (d) none of these

7. In MVT model , T stands for

   (a) Test (b) Type (c) Template (d) none of these

8. The template is an _____ file mixed with Django template language

9. The request in MVT is handled by

   (a) model (b) view (c) template (d) none of these

10. Which file is used to manage the administration task in DJANGO

    (a) setting.py (b) manage.py (c) project.py (d) all of these

11. _____ file is used in python to treat a folder as package

12. Which file contains all links of the project and function to call

    (a) manage.py (b) urls.py (c) wsgi.py (d) all of these

13. Which method bundles the form data with encryption

    (a) get method (b) post method (c) login method (d) none of these

14. Which method will be unsuitable for a password form to be transmitted to the server

    (a) GET (b) POST (c) both of these (d) none of these

15. _____ command help check whether our server is running successfully or not

16. _____ command install Django

17. _____ statement starts a server

18. What determines what content is displayed on a given page

    (a) views (b) models (c) urls (d) none of these

19. Which file is edited to install the app

    (a) urls.py (b) settings.py (c) views.py (d) model.py

20. _____ specifies beginning of url and ____ specifies the end of the rul.

Chapter 11: SQL

1. Which SQL function is used to count the number of rows in a SQL query?
a)COUNT()   b)NUMBER()   c)SUM()   d)COUNT(*)

2. Which SQL keyword is used to retrieve a maximum value?
a)MOST   b)TOP   c)MAX   d)UPPER

3. Which of the following SQL clauses is used to DELETE tuples from a database table ?
a)DELETE   b)REMOVE
c) DROP   d)clear

4. _____removes all rows from a table without logging the individual row deletions.
a)DELETE   b)REMOV   c)DROP   d)TRUNCATE

5.Which of the following is not a DDL command ?
a) UPDATE   b) TRUNCATE   c) ALTER   d) None of the Mentioned

6. Which of the following are TCL commands ?
a) UPDATE and TRUNCATE   b) SELECT and INSERT
c) GRANT and REVOKE   d) ROLLBACK and SAVEPOINT

7. _____ is not a category of SQL command.
a) TCL   b) SCL   c) DCL   d) DDL

8. If you don't specify ASC or DESC after a SQL ORDER BY clause, the following is used by default
a) ASC   b) DESC   c) There is no default value   d) None of the mentioned

9. What is the purpose of the SQL AS clause ?
a) The AS SQL clause is used change the name of a column in the result set or to assign a name to a derived column
b) The AS clause is used with the JOIN clause only
c) The AS clause defines a search condition
d) All of the mentioned

10) Which statement is wrong about PRIMARY KEY constraint in SQL?
   a) The PRIMARY KEY uniquely identifies each record in a SQL database table
   b) Primary key can be made based on multiple columns
   c) Primary key must be made of any single columns
   d) Primary keys must contain UNIQUE values.
   e) View Answer

_____

11) Which is/are correct statements about primary key of a table?
   a) Primary keys can contain NULL values
   b) Primary keys cannot contain NULL values.
   c) A table can have only one primary key with single or multiple fields
   d) A table can have multiple primary keys with single or multiple fields

12)In existing table, ALTER TABLE statement is used to
   a) Add columns
   b) Add constraints
   c) Delete columns
   d) All of the above

_____

13)SQL Query to delete all rows in a table without deleting the table (structure, attributes, and indexes)
   a) DELETE FROM table_name;
   b) DELETE TABLE table_name;
   c) DROP TABLE table_name;
   d) NONE

14) Wrong statement about UPDATE keyword is
   a) If WHERE clause in missing in statement the all records will be updated.
   b) Only one record can be updated at a time using WHERE clause
   c) Multiple records can be updated at a time using WHERE clause
   d) None is wrong statement

15) Wrong statement about ORDER BY keyword is
   a) Used to sort the result-set in ascending or descending order
   b) The ORDER BY keyword sorts the records in ascending order by default.
   c) To sort the records in ascending order, use the ASC keyword.
   d) To sort the records in descending order, use the DECENDING keyword.

---

16) Correct syntax query syntax to drop a column from a table is
   a) DELETE COLUMN *column_name*;
   b) DROP COLUMN *column_name*;
   c) ALTER TABLE *table_name* DROP COLUMN *column_name*;
   d) None is correct.

17) If you want to allow age of a person > 18 in the column Age of table Person, then which constraint will be applied to AGE column.
   a) Default
   b) Check
   c) NOT NULL
   d) None

18) In a table, a column contains duplicate value, if you want to list all different value only, then which SQL clause is used?
   a) SQL DISTINCT
   b) SQL UNIQUE
   c) SQL BETWEEN
   d) SQL Exists

19) Logical operators used in SQL are
   a) AND, OR , NOT
   b) &&, ||, !
   c) $,|,!
   d) None of the above

CHAPTER NO:12 CYBER SAFETY

1. _____Laws that deal with regulating , storing and using personally identifiable information.

2. The fraudulent attempt to obtain sensitive information such as credit card, password etc.
(a) Forensics (b) phishing (c) hacking (d) none of these

3. _____ is an electronic discovery technique used to determine and reveal technical criminal evidence.

4. __ refers to acquisition of personal data of the victim and using it for illegal purpose.
(a) Web beacon (b) plagiarism (c) identity theft (d) none

5. What is the method of user identification :
(a) Password (b) OTP (c) biometric (d) all of these

6. _____ refers to some data which is freely available to everyone to use.

7. The pictures in email message are called as
(a) phishing (b) web beacons (c) open data (d) none of these

8. The authorization which involves eye retina recognition comes under:
(a) OTP (b) Token (c) Biometric (d) none of these

9. _____ are the people which steal the information from computer with a wrong intention
(a) Crackers (b) Hackers (c) both of these(d) none of these

10. DRM stands for _____

11. _____ is the act of copying someone else's work and then passing it off as one's own.

12. _____ refers to creations of intellect : inventions , literary and artistic work.

13. _____ refers to freedom to use, share and modify the source code and allow copyrights to other users.
(a) Open source software (b) Licensed software (c) Proprietary software (d) All of these

14. _____ license provides accreditation , shared with CC
(a) APACHE license (b) GPL (c) A CC (d) All of these

15. _____ is a act of Indian Parliament dealing with cybercrime and electronic commerce.

16. Which of the following are cyber crime:
(a) cyber stalking (b) hacking (c) spamming (d) all of these

17. _____ is made up of deadly chemicals such as lead, cadmium, mercury etc.

18. One way to secure the data is to use the following protocol
(a) HTTP (b) HTTPS (c) FTP (d) any of them

19. What is the process of receiving unsolicited mails
(a) cracking (b) stalking (c) spamming (d) none of these

20. _____ is the term for access control technologies that are used by hardware manufacturers.