



BAL BHARATI PUBLIC SCHOOL
PRE-BOARD EXAMINATION (2023-24)
Subject -Informatics Practices(065)
Class - XII
Marking scheme(Set - B)

Section A

1. (d) `print(Data.iloc[0 : 4, 1 : 4])`

Explanation: `print(Data.iloc[0 : 4, 1 : 4])`

2. (b) Visual data is distorted or excessively used.

Explanation: It can be distracting: if the visual data is distorted or excessively used.

3. (d) RJ - 45

Explanation: RJ stands for Registered Jack.

4. (c) Numeric

Explanation: Numeric

5. (d) All of these

Explanation: All of these

6. (a) Chatting

Explanation: Chatting

7. (b) Entire system

Explanation: Entire system

8. (a) MAX()

Explanation: MAX()

9. (d) Tree

Explanation: Tree

10. (c) Internet addiction disorder

Explanation: Internet addiction disorder

11. (c) Data of emp_id will be sorted in ascending order

Explanation: Data of emp_id will be sorted in ascending order

12. (d) ORDER BY

Explanation: ORDER BY

13. (d) Digital signature

Explanation: Digital signature

14. (b) Open source software

Explanation: Open source software

15. (b) `import matplotlib.pyplot`

`as plt plt.plot([1,2,3],`

`[4,5,1])`

`plt.show()`

Explanation: `import matplotlib.pyplot as plt`

`plt.plot([1,2,3], [4,5,1])`

plt.show()

16. (d) (b) and (c)

Explanation: (b) and (c)

17. (c) A is true but R is false.

Explanation: A is true but R is false.

18. (a) Both A and R are true and R is the correct explanation of A.

Explanation: Both A and R are true and R is the correct explanation of A.

Section B

19. VoIP (Voice over Internet Protocol) is simply the transmission of voice traffic over IP based networks. VoIP has been around in one form or another, since 1973 when it began as an experiment by US.

OR

E-mails are easy to use. You can organise your daily correspondence, send and receive electronic messages and save them on computers.

20. CURDATE() function is used to get the current date.

21. SELECT department, avg(salary) from companyGroup by department;

22. String and date are not real numbers that we calculate. So, SUM() and AVG() functions are not valid for them.

23. i. Avoid to open unexpected E-mail attachments and download from unreliable sources. Resist the urge to double click everything in your mailbox.

ii. In stable reliable antivirus, scanning software and download its updates regularly.

OR

Identity theft is the crime of obtaining the personal or financial information of another person for the sole purpose of assuming that person's name or identity to make transactions or use it to post inappropriate remarks, comments etc. Example: Alex likes to do his homework late at night. He uses the Internet a lot and also sends useful data through email to many of his friends. One Day he forgot to sign out from his email account. In the morning, his twin brother, Flex started using the computer. He used Flex's email account to send inappropriate messages to his contacts.

24. import pandas

as pd

s=pd.Series()

print(s)

25. DataFrame_Object.<column_name>[row_name/label]=<modify value>

Section C

26. The output of the above queries

AVG(Salary)
42666.66
COUNT(Salary)
3
MIN(Salary)
32000

27. The GROUP BY clause can be used to combine all those records that have identical value in a particular field or a group of fields.

Whereas, ORDER BY clause is used to display the records either in ascending or descending order based on a particular field. For ascending order, ASC is used and for descending order DESC is used. The default order is ascending order.

(i) 28.

	A	B	C	D
0	21	12	69	NaN
1	45	45	84	NaN
2	23	86	70	NaN
3	17	33	78	Nan

ii. **ValueError:** Length of values does not match with the length of index.

iii.

	A	B	C	D
0	21	12	69	23
1	45	45	84	41
2	23	86	70	32
3	17	33	78	9

29. Computer viruses can cause and do the following damages

- i. Delete or change files, documents, or even format your hard disk drive, making your computer unusable.
- ii. A directory may be displayed as garbage.
- iii. Display pictures.
- iv. Slow down your PC dramatically.
- v. Logical partitions created and partitions decrease in size.
- vi. Release confidential information.
- vii. Cause system to hang or freeze.
- viii. Make strange noise or beeps.
- ix. Create more than one partition

OR

Primary interest of online attackers in spyware is using it to steal personal information for financial crimes such as carding and identity theft or to sell that information to someone else who then executes

more traditional financial crimes.

30. Result:

- i. 'INFOR MATICS'
- ii. 200.5

OR

- i. The NOW() function returns the system date and time.
- ii. 0 parameters
- iii. "YYYY-MM-DD HH : MM : SS".

Section D

- 31. i. Select POW(10,3); Result:
1000
- ii. ROUND(7.35);
- iii. SELECT MOD(955,35);
Result: 10

- iv. SELECT LOWER('WORLD'); Result: world
- v. SELECT UCASE('world'); Result: WORLD

OR

The string/text functions of SQL are used to extract, change, format or alter character strings. They accept a character string as an input and provides character string or numeric values as an output. Some string/text functions are explained with example as follows

CHAR()- This function returns the character value of the given integer value according to the ASCII table. It ignores the NULL value. By default, CHAR() returns a binary string.

Syntax CHAR(V₁, V₂, ..., v_n)

where, CHAR() interprets each argument as an integer and returns a string consisting of the characters given by the code values of those integers.

Argument types Integers

Return value String

e.g. mysql>SELECT CHAR(77, 121, 83, 81, 76);

Above query produces the following output

CHAR(77, 121, 83, 81, 76)
MySQL

1 row in set (0.00 sec)

32.(i) d) pd

Explanation: While creating the dataframe the object used is pd, so pandas is to be imported as pd.

(ii) (d) DataFrame

Explanation: The DataFrame() function creates a dataframe in Python Pandas.

(iii) (c) df.shape

Explanation: The shape attribute displays the number of rows and columns in a dataframe.

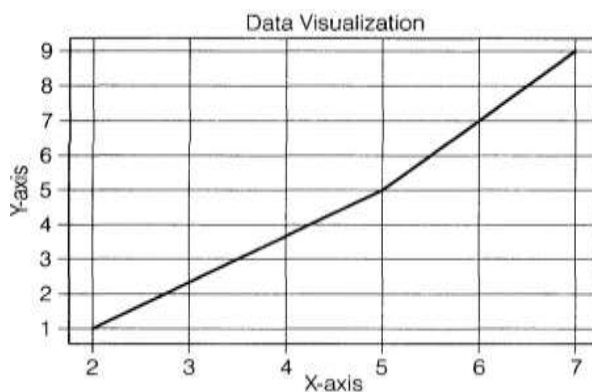
(iv) (d) df[['Month', 'Passengers']] [df['Month']=='Jan']

Explanation: Since only data of "Jan" is to be displayed the 'Month'=='Jan' condition is applied, along with the columns to be displayed as the 1st parameter.

(v) (d) df.index=["Air India", "Indigo", "Spicejet", "Jet", "Emirates"]

Explanation: To change the indexes of a dataframe, the new list of indexes can be specified as a list with the index property.

33.



Section E

34.

i. 4

ii. A 4

B 4

C 4

dtype: int64

iii. DEPT 3

EMPNO 3

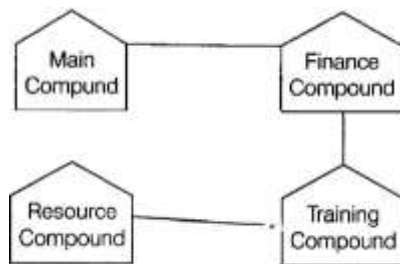
ENAME 3

SALARY 3

dtype: int64

IV.20000

35. (i)



ii. The most suitable place to house the server is Training Compound as it has maximum number of computers.

iii.

i. **Repeater:** As per one layout (shown in (i)), the repeater can be avoided as all distances between the compounds are ≤ 100 m.

ii. **Hub/Switch:** Training compound as it is hosting the server.

IV. (b) Optical fibre

Explanation: Optical fibre