

(SET 3)
KENDRIYA VIDYALAYA SANGATHAN, LUCKNOW REGION
SECOND PRE BOARD EXAMINATION 2023-24
CLASS XII
INFORMATICS PRACTICES (065)
MARKING SCHEME

Note : All the answers in this marking scheme are suggestive. Equivalent and correct answers may also be considered.

TIME: 03 HOURS

M.M.: 70

General Instructions:

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A has 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 02 questions carrying 04 marks each.
7. Section E has 03 questions carrying 05 marks each.
8. All programming questions are to be answered using Python Language only.

SECTION A

- | | | |
|-----|--|---|
| 1. | iii. WAN | 1 |
| | (1 mark for correct answer) | |
| 2. | i. You sent an email to your friend with a message saying that “I am sorry”. | 1 |
| | (1 mark for correct answer) | |
| 3. | (iv) Trademark | 1 |
| | (1 mark for correct answer) | |
| 4. | (iii) 7900 | 1 |
| | (1 mark for correct answer) | |
| 5. | iii. LENGTH() | 1 |
| | (1 mark for correct answer) | |
| 6. | iv. Open source software | 1 |
| | (1 mark for correct answer) | |
| 7. | iii. read_csv() | 1 |
| | (1 mark for correct answer) | |
| 8. | iv. LEN() | 1 |
| | (1 mark for correct answer) | |
| 9. | i. SEPTEMBER | 1 |
| | (1 mark for correct answer) | |
| 10. | Iv All of the above | 1 |
| | (1 mark for correct answer) | |

11. iv. ORDER BY 1
(1 mark for correct answer)
12. iii. Queue 1
(1 mark for correct answer)
13. iv. Ransomware 1
(1 mark for correct answer)
14. ii. Trim() 1
(1 mark for correct answer)
15. iv. Linux 1
(1 mark for correct answer)
16. iii. Creative Commons 1
(1 mark for correct answer)
17. i. Both A and R are true and R is the correct explanation for A 1
(1 mark for correct answer)
18. iii. A is True but R is False 1
(1 mark for correct answer)

SECTION B

19. Any correct definition of static and dynamic webpages. 2
(1 mark for correct explanation of each)

OR

Any correct definition of URL and Web with suitable example.

(1 mark for correct explanation)
(1 mark for correct example)

20.

```
import pandas as pd
dict = {"Technology":["Programming","Robotics","3D Printing"],"Time":[4,4,3]}
df= pd.DataFrame(dict)
print(df)
```

2

(1/2 mark for each correction)

21. i. SELECT INSTR("Class12@2023-24 Batch : All the Best!", "the"); 2
ii. SELECT RIGHT("Class12@2023-24 Batch : All the Best!", 5);
(1 mark for each correct query)

22.

```
1      3
2     10
3      3
4     10
5      3
6     10
dtype: int64
```

2

(2 marks for correct output)

23. E-waste or Electronic waste includes electric or electronic gadgets and devices that are no longer in use. Ex - discarded computers, laptops, mobile phones, televisions, tablets, music systems, speakers, printers, scanners etc 2
3Rs of e-Waste management – Reduce, Reuse, Recycle
- (1 mark for correct definition of e-waste)**
(1 mark for naming the 3Rs correctly)
24. **Statement 1** 2
 data={"Year": [2010, 2010, 2012, 2010, 2012], "Month": ["Jan", "Mar", "Jan", "Dec", "Dec"],
 "Passengers": [25, 50, 35, 55, 65]}
Statement 2
 df=pd.DataFrame(data)
- (1/2 mark for each correct statement)**
25. COUNT(*) returns the number of items in a group, including NULL values and duplicates. 2
 COUNT(columnname) evaluates expression for each row in a group and returns the number of not null values.
 Consider the table employee in Ques 33 :
 Select count(*) from employee;
 Output : 12
 Select count(deptno) from employee;
 Output : 10 (i.e. 2 rows in Deptno are NULL)
- (1 mark for correct difference)**
(1 mark for correct example)

SECTION C

26. i. SELECT PName, AVG(UPrice) FROM PRODUCT GROUP BY PName; 3
 ii. SELECT Manufacturer, MAX(UPrice) FROM PRODUCT GROUP BY Manufacturer;
 iii. SELECT * FROM PRODUCT ORDER BY UPrice DESC;
- OR
- i. MID(PName,2,4)
 ashi
 hamp
- ii. AVG PRICE
 141.5
- iii. PNAME TOT PRODUCT
 Washing Powder 1
 Tooth Paste 2
 Soap 2
 Shampoo 1
- (1 mark for each correct SQL Statement / Output)**

27. import pandas as pd
ind=['Hydrogen','Helium','Lithium','Beryllium']
s1=pd.Series(['H','He','Li','Be'], index=ind)
s2=pd.Series([1,2,3,4], index=ind)
dict={'Symbol': s1, 'Atomic Number':s2}
df=pd.DataFrame(dict)
print(df)

½ mark for import
½ mark for defining each Series
½ mark for correct index of DataFrame
½ mark for creating correct DataFrame
½ mark for displaying DataFrame

28. CREATE DATABASE MYSTORE;
USE MYSTORE
CREATE TABLE STORE (
 (ItemNo integer Primary Key,
 ItemName varchar(20) Not Null,
 Scode integer,
 Quantity integer,
 DatePurc date);

(½ mark for creating database)
(½ mark for opening database)
(2 mark for creating table correctly)

29. i. She is a victim of Cyber Bullying.
ii. Information Technology Act, 2000 (also known as IT Act).
iii. a. Need to be careful while befriending unknown people on the internet.
 b. Never share personal credentials like username and password with others.
(1 mark for each correct answer)

OR

Simran needs to be made aware of the following consequences:

- i) Eye strain
- ii) Painful muscles and joints
- iii) Poor memory
- iv) Lack of sleep
- v) Back pain and neck pain

(1 mark each for writing any 3 correct health hazards)

30. . CricketScore['Match4']=[65,115,85,99,99,88,90]
. CricketScore.loc["Hardik Pandya"]=[101, 98, 83, 43]
. CricketScore=CricketScore.rename({ 'Match3': 'SemiFinal'}, axis=1)

OR

CricketScore=CricketScore.rename({ 'Match3': 'SemiFinal'}, axis='columns')

(1 mark for each correct statement)

SECTION D

31. I. SELECT YEAR(MIN(M_MF_DATE)) FROM MOBILEMASTER;
 II. SELECT MONTH(MAX(M_MF_DATE)) FROM MOBILEMASTER;
 III. SELECT * FROM MOBILEMASTER WHERE MONTHNAME (M_MF_DATE) = 'AUGUST';
 IV. SELECT COUNT(M_ID) FROM MOBILEMASTER WHERE YEAR(M_MF_DATE)=2016;

(1 mark for each correct query)

32. i. a. 16
 b.

	<u>Diseasename</u>	<u>Agent</u>	<u>2022</u>	<u>2023</u>
1	Chickenpox	Virus	223	456
2	Cholera	Bacteria	1324	4521

(½ mark for each correct output/statement)

ii. health=health.drop(3)

OR

health.drop(3,axis=0)

(1 mark for correct statement)

iii. health["Total_patients "]= health['2022']+ health ['2023']

OR

health.to_csv("D:\patient.csv")

(2 mark for correct statement)

SECTION E

33. Write suitable SQL queries for the following:
- i. SELECT POWER(5,4);
 ii. SELECT NOW();
 iii. SELECT ROUND(98.4567,2);
 iv. SELECT TRIM(USERID) FROM USER;
 v. SELECT LENGTH('FIFA World Cup');

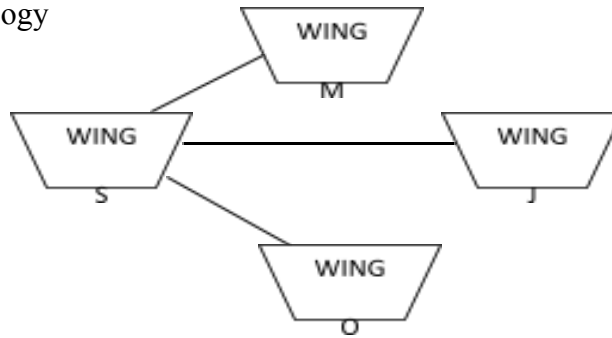
(1 mark for each correct query)

OR

- i. INSERT INTO EMPLOYEE VALUES (7981,'KELLY','CLERK',7698, '1999-10-11', 2500, 300, 30);
 ii. UPDATE EMPLOYEE
 SET JOB="ANALYTICAL ENGINEER"
 WHERE JOB="ANALYST";
 iii. DELETE FROM EMPLOYEE WHERE MGR IS NULL;
 iv. ALTER TABLE EMPLOYEE ADD Gender CHAR(1);
 v. SELECT ENAME, JOB, SAL FROM EMPLOYEE WHERE SAL BETWEEN 2500 AND 5000;

(1 mark for each correct query)

34. i. Wing S, To make the outgoing traffic low as Wing S has Maximum number of Computers.
 ii. STAR topology



- iii. Suggest the placement of the following devices with justification
 (a) **Repeater** : Wing O and Wing M, Wing O and Wing J, Wing S and Wing M, Wing J and Wing M as distance between them is more than 100 mtr.
 (b) **Hub/Switch** : In all the wings to connect 2 or more computers together.
 iv. Voice over Internet Protocol
 v. WAN, as distance is more than 100 Km or we are going to connect across cities.
(1 mark for each correct answer)

35. `import matplotlib.pyplot as plt #Statement 1`
`Height_cms=[145,141,142,142,143,143,141,140,143,144] #Statement 2`
`plt.hist(Height_cms) #Statement 3`
`plt.title("Height Chart") #Statement 4`
`plt.xlabel("Height in cms") #Statement 5`
`plt.ylabel("Number of people") #Statement 6`
`plt.show() #Statement 7`
(½ mark each for each correct statement 1,2,4,5,6,7)
(1 mark for correct statement 3)
`plt.savefig("heights.jpg")`
(1 mark for the correct statement)

OR

- `import matplotlib.pyplot as plt #Statement 1`
`hobby = ('Dance', 'Music', 'Painting', 'Playing Sports') #Statement 2`
`users = [300,400,100,500] #Statement 3`
`plt.bar(hobby, users) #Statement 4`
`plt.title("Favourite Hobby") #Statement 5`
`plt.ylabel("Number of people") #Statement 6`
`plt.xlabel("Hobbies") #Statement 7`
`plt.show() #Statement 8`
(½ mark for each correct statement)
`plt.savefig("hobbies.jpg")`
(1 mark for the correct statement)