

KENDRIYA VIDYALAYA SANGATHA GUWHATI REGION

Pre – Board Examination: 2022-23

SET – I

Class: XII

SUBJECT: INFORMATICS PRACTICES (065)

MARKING SCHEME

1.	(b) MAN	1
2.	FALSE	1
3.	(a) General Public License	1
4.	(c) ADD()	1
5.	(a) 76.43	1
6.	(c) an old computer	1
7.	(b) SELECT COUNT (*) FROM SALES;	1
8.	(a) GROUP BY	1
9.	(b) MIN()	1
10.	(b) pd.Series()	1
11.	(d) a and b both	1
12.	(d) All of the above	1
13.	(b) Chat	1
14.	(b) Plagiarism	1
15.	(a) matics Pr	1
16.	(d) Any crime that involves computer and networks	1
17.	(b) Both A and R are true and R is not the correct explanation for A	1
18.	(a) Both A and R are true and R is the correct explanation for A	1
19.	<p>Web Site: A collection of web pages related through hyperlinks, and saved on a web server is known as web site. website in general contains information organized in multiple pages about an organization.</p> <p>Web Server : Used to store and deliver the contents of a website to clients such as a browser that request it. A web server can be software or hardware. The server needs to be connected to the Internet so that its contents can be made accessible to others (1 mark for each correct explanation of each term)</p> <p style="text-align: center;">OR</p> <p>Four networking goals are: i. Resource sharing ii. Reliability iii. Cost effective iv. Fast data sharing (½ mark for each goal)</p>	2
20.	<p>Mr. Vinay missed the aggregate function in the query. The function he needs to write is avg(salary). The correct statement is:</p> <p>SELECT Category, <u>AVG(Salary)</u> FROM Hotel GROUP BY Category;</p>	2
21.	<p><u>Single row functions:</u> It operates on a single row It displays result per row It can be used within select, where and order by clause</p>	2

	<p>Examples: math, string, date etc.</p> <p><u>Aggregate functions :</u> It operates on multiple rows It displays one result for set of rows It can be used only in select clause Examples: min, max, avg, sum etc.</p> <p>(1 mark for difference and 1 mark for example of each)</p>	
22.	<p>Emp={'Ashok' :10000, 'Ravi' :7500 , 'Dinesh' :12500, 'Akram' :8000} S1=pd.Series(Emp) (1 mark for each correct statement)</p>	2
23.	<p>i. Bad Posture, Back Aches, Neck and Shoulder Strain ii. Pain in Wrists – Carpal Tunnel Syndrome iii. Eye Problem iv. Impact on bones and Joints v. Sleep Issues vi. Mental Health Issues (or any valid answer) (2 mark for any four correct options)</p> <p style="text-align: center;">OR</p> <p>i. Saves the environment and natural resources ii. Allows for recovery of precious metals iii. Protects public health and water quality iv. Saves landfill space (1/2 mark for each correct option)</p>	2
24.	<p>15 0 15 3 39 4 -90 (½ marks for each correct output line)</p>	2
25.	<p>i. The index labels of df will include Qtr1,Qtr2,Qtr3,Qtr4,A,B,C ii. The column names of df will be: 1,2 (1 mark for each correct answer)</p>	2
26.	<p>i. 11 ii. RAKESH VERMA iii. 16 4 (1 mark for each correct answer)</p>	3
27.	<p>import pandas as pd d=[['P101','COMPUTER',50000],['P222','TABLE',5000],['P201','MOUSE',1000]] df=pd.DataFrame(d,columns=['ProdID','PName','Price']) (1 mark for each correct python statement)</p>	3
28.	<p>i. Student['grade']= ['B1','A2','C2','D1'] ii. Student.loc['4']=['Krishna',80.5] iii. Student=Student.drop('grade',axis=1) (1 mark for each correct statement)</p>	2+1
29.	<p>i. Namita has become a victim of cyber bullying and cyber stalking. ii. She must immediately bring it into the notice of her parents and school authorities. And she must report this cyber crime to local police with the help of her parents.</p>	3

	<p>iii. Yes. The Information Technology Act, 2000 (also known as ITA-2000, or the IT Act) is the primary law in India dealing with cybercrime and electronic commerce. (1 mark for each correct answer)</p> <p style="text-align: center;">OR</p> <p>Cybercrime or computer- oriented crime is a crime that includes a computer and a network. The computer may have been used in the execution of a crime or it may be the target. It is the use of a computer as a weapon for committing crimes such as committing fraud, identity theft or breaching privacy. It especially through the Internet, has grown in importance as the computer has become central to every field like commerce, entertainment and government.</p> <p>[Hacking, Cyber Troll or Cyber Bullying, Illegal Downloads etc. are examples of cyber crime]</p> <p><u>Prevention of Cyber Crime:</u> Below are some points by means of which we can prevent cybercrime:</p> <p>1. Use strong password: Maintain different password and username combinations for each account and resist the temptation to write them down. Weak passwords can be easily cracked using certain attacking methods like Brute force attack, Rainbow table attack etc.</p> <p>2. Use trusted antivirus in devices: Always use trustworthy and highly advanced antivirus software in mobile and personal computers. This leads to the prevention of different virus attack on devices.</p> <p>3. Keep social media private: Always keep your social media accounts data privacy only to your friends. Also make sure only to make friend who are known to you.</p> <p>4. Keep your device software updated: Whenever you get the updates of the system software, update it at the same time because sometimes the previous version can be easily attacked.</p> <p>1 mark for correct definition 1 mark for correct example ½ mark each for any two ways to prevent from cyber crime</p>	
30.	<p>a. select avg(price),type from vehicle group by type having qty>20; b. select count(type) from vehicle group by company; c. select sum(price) from vehicle group by type; (1 mark for each correct query)</p> <p style="text-align: center;">OR</p> <p>GROUP BY clause is used in a SELECT statement in combination with aggregate functions to group the result based on distinct values in a column.</p> <p>To Display the average price of each type of vehicle having quantity more than 20. We need to group the records based on the type and then find average price using avg() function.</p>	3

V_no	Type	Company	Price	Qty
AW125	Wagon	Maruti	250000	25
J0083	Jeep	Mahindra	4000000	15
S9090	SUV	Mitsubishi	2500000	18
M0892	Mini van	Datsun	1500000	26
W9760	SUV	Maruti	2500000	18
R2409	Mini van	Mahindra	350000	15

select avg(price),type from vehicle group by type having qty>20;
(1mark for correct significance & 2 mark for correct example)

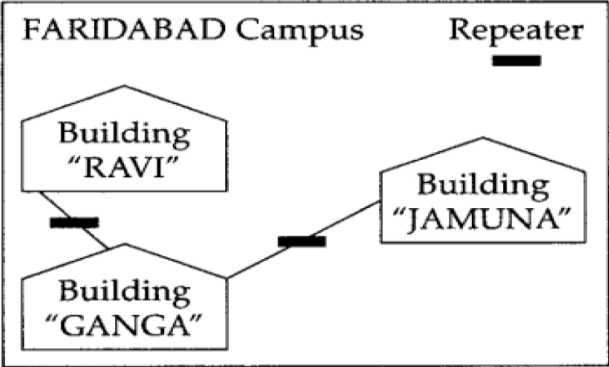
31. i. select mid('INFORMATICS PRACTICES',7,7);
ii. select INSTR('WELCOME WORLD','COME');
iii. select round(2334.78,1);
iv. select mod(200,7);
v. select trim(userid) from users;
1 mark for each correct query

OR

1. UCASE(): It converts the string into upper case.
Example:
SELECT UCASE('welcome world');
Output:
WELCOME WORLD
2. TRIM(): It removes the leading and trailing spaces from the given string.
Example:
SELECT TRIM(' Welcome world ');
Output:
Welcome world
3. MID(): It extracts the specified number of characters from given string.
Example:
SELECT MID(' Welcome world,4,,4);
Output:
Come
4. DAYNAME(): It returns the weekday name for a given date
Example:
SELECT DAYNAME('2022-07-22');
Output:
Friday
5. POWER(): It returns the value of a number raised to the power of another number.
Example:
SELECT POW(6,2);
Output:
36
- ½ mark for each correct explanation
½ mark for each correct example

32. i. The most suitable place to install server is building "JAMUNA" because this building has maximum computer which reduce the communication delay.
ii. Cable layout. (Bus topology).

2+3

	<div style="text-align: center;">  </div> <p>iii. (a) Since the cabling distance between buildings GANGA and JAMUNA are quite large, so a repeater each, would ideally be needed along their path to avoid loss of signals during the course of data flow in these routes. (b) In the layout a switch each would be needed in all the building, to interconnect the group of cables from the different computers in each building.</p> <p>iv. Optical fiber v. Video conferencing (1 mark for the correct Answer)</p>	
33.	<pre>import matplotlib.pyplot as plt Category=['Gold','Silver','Bronze'] Medal=[20,15,18] plt.bar(Category,Medal) plt.ylabel('Medal') plt.xlabel('Medal Type') plt.title('Indian Medal tally in Olympics') plt.show()</pre> <p>(½ mark for each correct statement)</p> <p>Python statement to save the chart: plt.savefig("aa.jpg") (1 mark for the correct statement)</p> <p style="text-align: center;">OR</p> <pre>import matplotlib.pyplot as plt Week=[1,2,3,4,5] temp=[25,29,27,30,33] plt.bar(Week, temp) plt.show()</pre> <p>(1 mark for each correct statement)</p>	1+1+2
34.	<p>i. SELECT UPPER(NAME) FROM Furniture; ii. SELECT MAX(COST) FROM FURNITURE; (1 mark for each correct query)</p> <p>iii. SELECT COUNT(*) FROM FURNITURE GROUP BY DISCOUNT HAVING DISCOUNT=10;</p> <p style="text-align: center;">OR</p> <p>SELECT YEAR(DOP),COUNT(*) FROM FURNITURE GROUP BY YEAR(DATEOFPURCHASE); (2 marks for correct query)</p>	1+1+2
35.	<p>A. Output: i. (5,4)</p>	1+1+2

ii.				
	School	tot_students	Topper	Runnerup
Cyb2	GPS	20	18	2
Cyb4	MPS	18	10	8
1 mark for each correct output				
B. Python statement:				
print(df.loc['Cyb2': 'Cyb5', 'Topper'])				
OR				
print(df.Total_students-df.Runnerup)				
2 marks for correct Python statement				
