CBSE Sample Paper
Informatics Practices (Code:065)
Class XII

Maximum Marks: 35
Time: 2 hours

General Instructions:

- The question paper is divided into 3 sections – A, B and C
- Section A, consists of 7 questions (1-7). Each question carries 2 marks.
- Section B, consists of 3 questions (8-10). Each question carries 3 marks.
- Section C, consists of 3 questions (11-13). Each question carries 4 marks.
- Internal choices have been given for question numbers – 1, 3, 8 and 12.

Section – A

Each question carries 2 marks.

1. **PREM CHURIWALA**, Executive manager of '**Purulia Finance Company**', recently discovered (2)
    that the communication between his company's accounts office and HR office is extremely
    slow and signals drop quite frequently. These offices are 130 meters away from each other
    and connected by an Ethernet cable.
    (i) Suggest him a device, which can be installed in between the offices for smooth communication.
    (ii) What type of network is formed by having this kind of connectivity out of LAN, MAN and WAN?

\---

CBSE Sample Papers | CBSE Guess Papers | CBSE Practice Papers | Important Questions | CBSE PSA |
CBSE OTBA | Proficiency Test | 10 Years Question Bank | **CBSE Guide** | CBSE Syllabus | Indian Tutors |
Teacher' Jobs CBSE eBooks | Schools | Alumni | CBSE Results | CBSE Datesheet | CBSE News

OR

ANANYA SARKAR of **Balarampur, Purulia** is learning about network topologies. Identify the

following topologies to help her:

(i) A signal/data packet transmits from one end to other end in linear way.

(ii) Node failure does not lead to whole network failure.

2. Answer the following questions:

(2)

(i) **SANJANA SEN** of **Purulia** is not able to identify the Domain Name in the given URL. Identify

and write it for her.

http://www.cbse.nic.in/start.htm

(ii) Write one advantage of using 'Star topology' over 'Bus topology'.

3. **HARSH AGARWAL** has created a table named **'Actor'** which contains a field called

aname.   (2)

Write MySQL queries for the followings:

(i) To show all the names of the actors which contain the string 'ch' in it.

(ii) To display all the names of the actors which contain exactly 5 characters and also the second

characters is 'o' (such as Gopal or Mohan).

OR

Given a table named **'Cricket'** below:

PID	PNAME	MATCHES
P01	**OHM MISHRA**	296
P06	**KUSHAL SINGHANIA**	245
P07	**ANIKET THAKUR**	162
P10	**VANSH PODDAR**	197
P13	**NIHAL AGARWAL**	182
P14	**ANISH CHURIWALA**	202
P18	**ADARSH RAJGARIA**	287

Based on the above table, identify with reasons the incorrect MySQL commands from the followings:

DELETE * FROM Cricket;

DELETE FROM Cricket WHERE Matches >= 250;

DELETE FROM Cricket;

DELETE PId, PName, Matches FROM Cricket WHERE PName LIKE 'A%';

4. **HARSH SARAOGI** and **YASH LOHARIWA**L are learning about the network devices. But they are (2) confused about the fact that why a switch is called an intelligent hub. Find the answer to help the

5. **PARTH SARATHI GUIN** of **AGPN School, Purulia** has created the following **'RECORD'** table: (2)

ROLL	NAME	AGE
06	**ADITI DUTTA**	17
10	**PURWAK SINGHANIA**	18
11	**KOMAL AGARWAL**	17
12	**SNEHA KUMARI**	18
19	**NABANITA MAHATO**	17
22	**SHIVAM JAISWAL**	18
27	**ANKIT JAISWAL**	18
32	**PREETI MALL**	17

Write down the output of the following commands:

(i) SELECT LENGTH(MAX(Name)) FROM RECORD;

(ii) SELECT MAX(LENGTH(Name)) FROM RECORD;

6. **VANSHIKA AGARWAL** of **AGCS SCHOOL, PURULIA** is preparing for the upcoming Board's (2)

Term – II examination to be started from 26th of April 2022. In this connection she is learning

about different clauses in MySQL. Help her to understand the purpose of GROUP BY clause.

Also help her to understand with example that how it is different from ORDER BY clause.

7. Table **'COACHING'** is shown below. Write commands in MySQL for questions (i) to (ii). (2)

ID	NAME	MARKS	CITY	FEE
P1	**SAWASTIKA KARMAKAR**	89	DELHI	45000
P2	**RIMSHA NAAZ**	93	MUMBAI	54000
P3	**SNEHA MANDAL**	88	CHENNAI	45000
P4	**KHUSHI KATARUKA**	90	MUMBAI	60000
P5	**SWARNALI DEY**	96	INDORE	34000

CBSE Sample Papers | CBSE Guess Papers | CBSE Practice Papers | Important Questions | 10 Years Question Bank | **CBSE Guide** | CBSE Syllabus | Indian Tutors | **Teacher' Jobs** CBSE eBooks | Schools | Alumni | CBSE Results | CBSE Datesheet | CBSE News

P6	**TRIPTY KUIRY**	89	DELHI	23000
P7	**RIYA DAS**	87	DELHI	21000
P8	**ADITI SAW**	80	MUMBAI	36000
P9	**ANUSHKA ROY**	84	MUMBAI	30000

(i) Write a query to display name in descending order whose marks is more than 90.

(ii) Write a query to find the average fee grouped by city from coaching table.

OR

Find the output of the following commands:

(i) SELECT SUM(FEE) FROM COACHING WHERE CITY LIKE "%N%";

(ii) SELECT NAME, CITY FROM COACHING GROUP BY CITY HAVING COUNT(*) **>= 2**;

Section – B

Each question carries 3 marks.

8. **KHUSHI SULTANIA** and **SHRUTI LOHARIWAL** have created the table **'BUSINESS'** given below.   (3)
   Write MySQL commands for questions (a) to (c).

CODE	NAME	TYPE	CAPITAL	BANKLOAN	DATEOFSTART
B1001	**VINAMRA AGARWAL**	Textile	5500000	2500000	2010-06-24
B1005	**VARSHA DUTTA**	Medicine	4200000	NULL	2012-07-05
B1007	**KANISHKA SULTANIA**	Household	3700000	1700000	2011-01-30
B1003	**NISHANT TIBREWAL**	Automobile	8600000	3200000	2009-08-04
B1006	**SWARNABI DEY**	Electrical Goods	6000000	4500000	2012-01-15

(a) To count number of business persons whose bank loan is less than the half of the capital.

(b) To list the Name, Type and Dateofstart for all the business persons whose business is

   started in 2012.

(c) To display the name of the business persons and their capital who have started their business

   in the month of January.

OR

CBSE Sample Papers | CBSE Guess Papers | CBSE Practice Papers | Important Questions | 10 Years Question Bank | **CBSE Guide** | CBSE Syllabus | Indian Tutors | **Teacher' Jobs** CBSE eBooks | Schools | Alumni | CBSE Results | CBSE Datesheet | CBSE News

Based on the table **'BUSINESS'** given above write output for (a) to (c).

(a) SELECT Name, Bankloan FROM Business WHERE Month(Dateofstart) > Day(Dateofstart);

(b) SELECT Name, Capital FROM Business WHERE Bankloan BETWEEN 4500000 AND 6000000;

(c) SELECT Type, Capital FROM Business WHERE Type LIKE '%o%';

9. **DIPIKA AGARWAL** of **AGCS, PURULIA** requested her friend **RAJANYA MUKHERJEE** to tell (3) answers of few questions regarding Single Row Function and Multiple Row Function in MySQL.

What answers will be suggested for the given questions by **RAJANYA** to help **DIPIKA**?

(i) Differentiate between Single Row Function and Multiple Row Function.

(ii) Name any two functions in each category.

(iii) Write two separate queries showing the use of both types of functions.

10. Consider the following table **'Employee'** created by **AMAN DIKSHIT**:

(3)

No	Name	Salary	Zone	Age	Grade	Dept
1	**CHANDAN KATARUKA**	60000	West	28	A	10
2	**BIKRAM MAHATO**	65000	Central	30	A	10
3	**RIK SINGH**	62000	West	40	NULL	20
4	**AYUSH PODDAR**	68000	North	38	C	30
5	**SOUVIK SENAPATI**	62000	East	26	NULL	20
6	**SATTYAM AGARWAL**	67000	South	28	B	10
7	**SNEHASHISH NAIK**	66000	North	26	A	30

Based on this table write SQL statements for the following queries:

(i) To display the total salary for all the employees who are from west zone.

(ii) To count no of employees without any grade.

(iii) To display zone wise highest salary and lowest salary.

Section – C

Each question carries 4 marks.

11. Predict the output of the following queries: (4)

(i) SELECT MID(**'MEGHA SINGHANIA'** , 17%10 , 5%10);

CBSE Sample Papers | CBSE Guess Papers | CBSE Practice Papers | Important Questions | 10 Years Question Bank | **CBSE Guide** | CBSE Syllabus | Indian Tutors | **Teacher' Jobs** CBSE eBooks | Schools | Alumni | CBSE Results | CBSE Datesheet | CBSE News

(ii)   SELECT YEAR(NOW( )) + DAY(NOW( )) + MONTH(NOW( )) "New Column";

(iii) SELECT YEAR(NOW( )) % MONTH(NOW( ));

(iv)   SELECT ROUND(4635.217 , -3) + ROUND(6107.239, -3);

(v)   SELECT SUBSTR(**'ANJALI JAISWAL'** , INSTR(**'SUBHRA MANDAL'** , 'MAN'));

(vi)   SELECT MID("**AYUSHI AGARWAL**" , MOD(5 , 6) , LENGTH("AGCS"));

(vii) SELECT MOD(130.500 , 5) + ROUND(130.50 , 1);

(viii) SELECT MONTH(NOW( )) + YEAR('2022-04-20') % 5;

12. **RUCHI KATARUKA** a student of class **XII commerce** has created the following **'PLAYER'**

table   (4)

showing the batting records of Indian players in 'One Day International' cricket
matches.

Write SQL commands for (i) to (iv).

Table : PLAYER

PName	Matches	Innings	Notouts	Runs	Highest	Average	Hundreds	Fifties
ARYAK	280	243	66	8936	183	50.48	8	61
DHRUB	176	168	25	7570	183	52.93	26	38
MOHIT	126	87	NULL	1849	87	32.43	0	10
DIPAK	153	147	23	5131	264	41.37	10	29
MAYANK	74	73	3	3078	137	43.97	9	17
YASH	102	58	NULL	658	65	16.45	0	1

(i)   To show all the details of the players having scored hundreds and not played
matches

less than 150.

(ii) To display player's name, matches played, runs scored of those players who have
remained

not out and scored more than 5000 runs.

(iii) To list player's name, runs and average in descending order of their highest score.

(iv) To count the number of players who have scored both hundreds and fifties.

OR

Write output for the commands shown in questions (i) to (iv) on the basis of the table
'PLAYER'

given above:

(i)   SELECT PName, Innings – Notouts "Total Outs" FROM Player WHERE Runs > 5000;

(ii) SELECT PName, Runs FROM Player WHERE Fifties > (SELECT MAX(Hundreds) FROM
Player);

CBSE Sample Papers | CBSE Guess Papers | CBSE Practice Papers | Important Questions | 10 Years Question
Bank | **CBSE Guide** | CBSE Syllabus | Indian Tutors | **Teacher' Jobs** CBSE eBooks | Schools | Alumni | CBSE
Results | CBSE Datesheet | CBSE News

(iii) SELECT PName, Hundreds, Fifties FROM Player WHERE Fifties > 2 * Hundreds;

(iv) SELECT PName FROM Player WHERE Matches – Innings > 20;

13. **'METRO MEDICAL AND RESEARCH CENTER'** of **PURULIA** has set up its new center in **KOLKATA**. (4)

It has four buildings as shown in the diagram given below:

Distance between various buildings is as follows:

Accounts to Research Lab	55m
Accounts to Store	150m
Store to Packaging Unit	160m
Packaging Unit to Research Lab	60m
Accounts to Packaging Unit	125m
Store to Research Lab	180m

Number of Computers:

Accounts	25
Research Lab	100
Store	15
Packaging Unit	60

As a network expert, provide the best possible answer for the following queries:

(a) Suggest a cable layout of connections between the buildings.

(b) Suggest the most suitable place (i.e. buildings) to house the server of this organization.

(c) Suggest the placement of the following device with justification:
(i) Repeater
(ii) Hub/Switch
(d) Suggest a system (hardware/software) to prevent unauthorized access to or from the network.

Sample Paper submitted by:

NAME　　　　:　**MR. RAJESH KUMAR SINGH (MCA)**
ADDRESS　　:　**NEW COLONY, NIMTAR, MISSION ROAD,**
POST + DIST :　**PURULIA (WEST BENGAL)**
PIN　　　　　:　**723101**
E-MAIL　　　:　**rajeshsinghprl1@gmail.com**
MOB　　　　:　**7001849705**