MBS INTERNATIONAL SCHOOL<br>SECTOR-11, DWARKA<br>SESSION- 2019-20<br>PRACTICE PAPER<br>INFORMATICS PRACTICES<br>CLASS - XI

Time allowed: $1 \frac{1}{2}$ Hours
Maximum Marks: 35

## General Instructions:

1. Please check that this question paper contains 5 questions.
2. Please write down the serial number of the question before attempting it.
3. Programming language used is Python.
4. Use appropriate variable names.
5. Indent your program appropriately.

All questions are compulsory and a few have internal choices
Q. 1 a) What is the importance of cache memory in a Computer System? 2
b) Which of the following are legitimate variable declarations:
i) My.var
ii) _GLOBAL
iii) for
iv) While
c) What will be the output of the following program?
$a, b, c=10,20,30$
$a, b, a=c+2, a+5, c+3$
print(a,b)
Q. 2 a) Write a program to find simple interest using principal, rate and time. Accept data from user.

Si=(P*R*T)/100
b) Write a python program to find the area of a triangle using the given formula.

Accept base and height from user
area $=($ base $* h e i g h t) / 2$
Q. 3 a) What will be the output of the following python code?
$a, b=10,50$
if $b \% a=0$ :
print(b//4)
print(a/2)
else:
print(a**2)
print(b\%3)
b) Write a python program to find the area and perimeter of a rectangle based on user choice. ( If user types 1 area is displayed and if 2 is typed perimeter is displayed)
c) Convert the following python program using for loop.
$i=0$
sum $=0$
while $i<=10$ :
sum $=$ sum +i
$\mathrm{i}=\mathrm{i}+1$
print(sum)
d) Write a python program to find the largest of three numbers.
Q. 4 a) What is the purpose of SQL?
b) It's an era of online financial transactions. Help Julie in identifying any two challenges which a common man may face for the same.
c) Mention any one major environmental benefits of ICT to Ms. Megha so that she can utilize it in her future "Save Earth" campaign
d) Ms. Achla, works as a Programmer in a survey firm named "National Survey Foundation". In her current project, she is supposed to design a survey page for an online educational training program. Help her in choosing the most appropriate controls for the specified task from Textfield, Label, RadioButton, CheckBox, ListBox, ComboBox, Button and write in the third column:

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S. No. Control used to input
1 TRAINEE'S NAME
2 TRAINING LOCATION
3 GRADE THE SESSION
(Excellent, Good,Satisfactory, Unsatisfactory)
SUGGESTIONS
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Q. 5 a) Mr. Manav, a database administrator in "Global Educational and Training Institute" has created following table named "Training" for the upcoming training schedule:

| Training Id | Name | Email Id | Topic | City | Fee |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ND01 | Mr. Rajan | raj@gmail.com | Cyber <br> Security | New Delhi | 10000 |
| GU01 | Ms. Uryashi | $\underline{\text { urv@yahoo.com }}$ | ICT in <br> Education | Gurugram | 15000 |
| FD01 | Ms. Neena | neenarediff.com | Cyber <br> Security | Faridabad | 12000 |
| ND02 | Mr. Vinay | NULL | ICT in <br> Education | New Delhi | 13000 |
| GU02 | Mr. Naveen | nav@gmail.com | Cyber <br> Security | Gurugram | NULL |

Help him in writing SQL query for the following purpose:
i. To count how many female candidates will be attending the training.
ii. To display list of free trainings.
iii. To display all the cities where Cyber Security training is scheduled along with its fee.
iv. To add a column feedback with suitable data type.
b) Observe the table named "Training" given above carefully and predict the output of the following queries:
i. select city from training where topic = 'Cyber Security';
ii. select count(Training_Id) from training where email_id like '\%gmail\% ';
iii. select AVG (Fee) from training where Topic = 'Cyber Security';
iv. select name from training where INSTR (Email_Id, '@')=0;
c) What is the degree and cardinality of the above given table named 'Training'.

