

AMRITA VIDYALAYAM
ANNUAL EXAMINATION 2019 - 20

Class : XI

Marks : 70

Time : 3 hrs

INFORMATICS PRACTICES (065)

SECTION - A

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|------|---|---|
| 1.a) | What is Unicode? Mention any 2 advantages of Unicode. | 3 |
| b) | Give any 2 differences between Computer and a Calculator. | 1 |
| c) | Suggest any two solution measures when your computer is frozen. | 1 |
| d) | Which keyword is used to filter records from a table? | 1 |
| e) | What do you mean by Aggregate functions in Mysql? Mention any two. | 2 |
| f) | Differentiate between Alter and Update command. | 2 |
| g) | Differentiate between Char and Varchar datatypes. | 2 |
| 2.a) | Predict the output for the following statements st1, st2, st3. | 3 |
| | <pre> d1={ 1:10 , 2:20 , 3:30 , 4:40 , 5:50 } print(d1.values()) #st1 d2={ 6:60 , 7:70 } d1.update(d2) print(d1) #st2 print(len(d1)) #st3 </pre> | |
| b) | What is the difference between del command and pop() in a dictionary. Illustrate with an example. | 2 |
| c) | What will be the output for the following Python statements pr1, pr2, pr3 and pr4. | 2 |
| | <pre> import math import statistics print(math.pow(2,4)) #pr1 print(math.floor(100.72)) #pr2 print(math.fabs(-15.5364)) #pr3 s1=statistics.median([1,2,3,8,9]) print(s1) #pr4 </pre> | |
| d) | Write the Python expressions for the following. | 3 |
| | <div style="display: flex; justify-content: space-between;"> <div>(i) $\sqrt{x^2 + y^2 + z^2}$</div> <div>(ii) $\frac{\cos x}{\sin x} + x$</div> <div>(iii) $\frac{1}{2}bh$</div> </div> | |
| e) | Mention any two jump statements used in Python. | 1 |
| f) | Based on the below list, write the output for the following statements st1, st2 and st3. | 3 |
| | <pre> L1=[13,18,20,10,18,23,18,11] print(L1.count(18)) #st1 print(L1.index(23)) #st2 L2=L1.append(5) print(L1) #st3 </pre> | |
| g) | What are operators? Explain the different operators present in Python with example. | 4 |

SECTION - B

- | | | |
|------|---|---|
| 3.a) | Differentiate between Numpy array and Lists. | 2 |
| b) | Write a program in Python which performs the basic arithmetic operations on 2D array. | 4 |
| c) | Differentiate between vstack() and hstack(). Illustrate with appropriate examples. | 3 |
| d) | Write the output for the following statements. | 3 |
| | Import numpy as np | |

```
A1=np.array([5,7,9,10,11,15])
print(A1[2:])          #st1
print(A1[1:4])         #st2
print(A1[-3:])         #st3
```

- e) Mention the methods used for the following tasks. 3
- (i) To create a 2D array from a 1D array.
- (ii) To create array from a range.
- (iii) To join two arrays.

SECTION - C

- 4.a) Define the following terms. 4
- (i) Attributes (ii) Cardinality (iii) Primary Key (iv) DDL
- b) Write the Mysql queries for the following.
- (i) Create a table with the following structure and apply necessary constraints in the table. 2

Table : Salesperson

Field	Datatype	Constraint
Sid	Int(5)	Primary Key
Sname	Char(15)	Not null
Age	Int(3)	
Salary	Decimal(15,2)	
Phone	Int(12)	

- (ii) Add one record into the table with the following values. 1
- (1108, 'Sunil S', 34, 40000, 9586864541).
- (iii) To display the Salesperson's details who earns salary in the range of 10000 to 20000 (both values included). 1
- (iv) To display the name of Salesperson in their descending order of Salary. 1
- (v) To display the name of Salesperson whose is age below 35 and name starts with A. 1
- (vi) Increase the salary by ₹ 500 of all Salesperson whose salary is above 20,000. 1
- (vii) Add one field DOJ of Date data type. 1
- c) Write the output for the following queries based on the table below. 3

Table : Student

St_Id	St_Name	Game	Grade	Fees
10	Sameer	Hockey	A	500
11	Sujith	Cricket	B	750
12	Vaishak	Volley Ball	B	600
13	Veena	Hockey	C	NULL
14	Anuja	Tennis	B	700
15	Arpit	Tennis	A	300

- (i) SELECT St_Name from Student WHERE Game IN ('Tennis', 'Cricket');
- (ii) SELECT DISTINCT (Grade) from Student;
- (iii) SELECT St_Id, St_Name from Student Where St_Name LIKE '%a' AND Fees IS NULL;

SECTION - D

- 5.a) Mention any 2 tips to ensure our safety while browsing the web. 1
- b) What do you mean by Netiquettes? 1
- c) Define Eavesdropping. 1
- d) Differentiate between Cyber Bullying and Cyber Stalking. 2
- e) What is Digital Footprint? Why is it so important? 2
- f) What measures should one take to avoid and maintain confidentiality of personal information? 3