

Annual Examination

Subject: Informatics Practices (Code 065)

Time: 3 Hours

Class 11th

Max. Marks: 70

General Instructions:

1. Question Paper contains two parts. Both are compulsory.
2. Part A further had two sections:
 - i. Section I is short answer questions. Answer it in one word or one line.
 - ii. Section II has two case study questions. Each case-study has four case-based sub parts.
3. Part B is descriptive Paper.
4. Part B has three sections:
 - i. Section I is short answer questions of two marks each.
 - ii. Section II is long answer questions of three marks each.
 - iii. Section III is very long answer questions of five marks each.

PART- A

Sec-I

Attempt any 15 questions. Each carry one mark.

Q 1. State whether true and false:

- a) 1 GB = 1024 bytes
- b) The primary memory units store the data and instructions permanently.

Q 2. The brain of any computer system is

- a) ALU
- b) Memory
- c) CPU
- d) Control unit

Q 3. Suppose list1 is [2, 33, 222, 14, 25], What is list1[-1]?

- a) Error
- b) None
- c) 25
- d) 2

Q 4. Suppose list1 is [1, 3, 2], What is list1 * 2?

- a) [2, 6, 4]
- b) [1, 3, 2, 1, 3]
- c) [1, 3, 2, 1, 3, 2]
- d) [1, 3, 2, 3, 2, 1]

Q 5. Which of the following code is correct?

- a) Print ("Welcome to python programming")
- b) Print ("Welcome to "python programming")
- c) Print ("Welcome to python programming")
- d) Print ("-----")

Q 6. is used to extract a part of the list.

Q 7. After evaluating the following expression what will be the output of this expression?

$$12+3*4-6/2$$

- a) 21.0
- b) 57.0
- c) 27.0
- d) None of these

Q 8. After executing the following code, what will be the output?

A=6

A+=5

- a) 11
- b) 5
- c) 6
- d) 10

Q 9. Which of the following can be used to create comments

- a) //
- b) ""
- c) #
- d) "" ""

Q 10. The number of tuples in a relation is called the ___ of the relation?

- a) Degree
- b) Tuple
- c) Attribute
- d) Cardinality

Q 11. Which SQL keyword(s) is/are used to sort the rows in the output:

- a) SORTED ORDER
- b) SORT
- c) SORT BY
- d) ORDER BY

Q 12. Distinct clause is used to remove _____ rows from the result of the select statement?

Q 13. Which statement is used to modify data in a table?

- a) CHANGE
- b) MODIFY
- c) UPDATE
- d) SAVE AS

Q 14. Define degree?

Q 15. Give the term for the following:

- a) Special value that is stored when actual data value is unknown for an attribute.

Q 16. SELECT statement can be used to perform these functions.

- a) Insert rows into a table.
- b) Choose and display columns from a table.
- c) Modify data in a table.
- d) Select and display structure of a table

Q 17. Which of the following statements will make a statement to execute repeatedly?

- a) if
- b) if - else
- c) for
- d) D) pass

Sec- II

Solve the following 2 Case study-based questions. Each have four sub parts holding single mark each.

- Q 18. Write the corresponding Python assignment statements:
- Assign 10 to variable length and 20 to variable breadth.
 - Assign the average of values of variables length and breadth to a variable sum.
 - Assign the strings 'Mohandas', 'Karamchand', and 'Gandhi' to variables first, middle and last.
 - Assign the concatenated value of string variables first, middle and last to variable fullname.

Make sure to incorporate blank spaces appropriately between different parts of names

- Q 19. Name the input/output device used to do the following:

- To output audio
- To enter textual data
- To make hard copy of a text file
- To display the data/information

PART B

Sec- I

Attempt the following 10 questions. Each carry two marks.

- Q 20. What do you mean by debugging?
- Q 21. Python provide many operators like arithmetic, relational, logical and shorthand operator. Provide some examples of shorthand operators.
- Q 22. What is the difference between else and elif construct of if statement?
- Q 23. What is the output: P=10, Q=20, P+=Q, Q-=P
- Q 24. Give the output of the following expression
- $$\text{Num} = 2 + 9 * ((3 * 12) - 8) / 10$$
- Q 25. What is an Operating System? Write names of any two popular operating systems?
- Q 26. What is a DBMS?
- Q 27. What do you mean by null value? Give an example.
- Q 28. Differentiate between DELETE and DROP command in SQL? Give example.
- Q 29. Write a query that selects all orders except those with zero or null in the Amt field from table order.

Sec-II.

Attempt the following 4 questions. Each carry three marks.

- Q 30. Write a Python program to accept a number and check whether it is positive, negative or zero.
31. Write a Python program to calculate simple interest and amount by obtaining the value of Principle, rate and time.
- $$\text{Simple Interest} = \text{Principle} * \text{rate} * \text{time} / 100$$
- $$\text{Amount} = \text{Principle} + \text{Simple Interest}$$

Table Name : GYM

PrCode	PrName	UnitPrice	Manufacturer
P101	Cross Trainer	25000	AvonFitness
P102	TreadMill	32000	AGFitline
P103	Massage Chair	20000	Fit Express
P104	Vibration Trainer	22000	AvonFitness
P105	Bike	13000	Fit Express

- Q 32. Consider the above table GYM and write the SQL statements to do the following:
- Change the Unit Price data of all the rows by applying a 10% discount reduction on all the products.
 - Display details of all products with manufacturer name starting with "F".
 - Delete the entire table along with its structure

Q33. Suppose your school management has decided to conduct cricket matches between students of class XI and Class XII. Students of each class are asked to join any one of the four teams — Team Titan, Team Rockers, Team Magnet and Team Hurricane. During summer vacations, various matches will be conducted between these teams. Help your sports teacher to do the following:

- Create a database "Sports".
- Create a table "TEAM" with following considerations:

It should have a column TeamID for storing an integer value between 1 to 9
Each Team should have its associated name (TeamName), which should be a string of length not less than 10 characters.

- Show the structure of the table TEAM using SQL command

Sec- III

Attempt the following 3 questions. Each carry five marks.

- Q 34. a) Define AI and Machine Learning? (2 marks)
b) Differentiate between cloud computing and grid computing with suitable examples(3 marks)

- Q 35 a) Write a python program to check whether you are eligible to vote or not? (3 marks)

b) Write a program to accept name and age and print like the following format:
(Hello, ___ are ___ years old) (2 marks)

- Q36. Write SQL command for the questions following on the basis of table Pay. (5 marks)

Table : Pay

No	Name	Salary	Area	Age	Grade	Dept
1	Kirti	40000	West	45	C	Civil
2	Ravina	35000	South	38	A	Elec
3	Karan	60000	North	52	B	Comp
4	Tarun	142000	East	29	A	Civil
5	Aryan	50000	West	30	A	Elec

- To display the names of all employees who are in the area 'East'.
- To display name and age of all employee whose age >40.
- To display list of all employee whose salary is more than 20000 and less than 40000.
- To display the employee in descending order of age.
- To insert a new row with the following data:-
6, 'Saink Kapoor', 65000, 'West', 35, 'A', 'Civil'.