

CUET UG 2023 Computer Science & Informative Practices Question Paper PDF (May 30, 2023) (Shift 1)

- Identify invalid Built-in exceptions in Python:
(a) IO Error (b) Value Error
(c) Syntax Error (d) Typo Error
- Consider the following statements:
(A) Database schema represents structure, type of data.
(B) Database instance is the snapshot of database at any given time.
(C) Database catalog is called meta-data.
(D) Data constraints are restrictions or limitations on the type of data.

Choose the correct answer from the options given below:

- (a) (A) and (B) Only
(b) (B) and (C) Only
(c) (A), (B) and (C) Only
(d) (A), (B), (C) and (D)
- Which of the following is not a category of SQL commands:
(a) Data Definition Language
(b) Data Query Language
(c) Data Definition Language
(d) Data Modeling Language
- Which of the following is not the limitations of the file system:
(a) Data Consistency (b) Data Redundancy
(c) Data Dependence (d) Data Isolation
- _____ is the output of the following SQL query SELECT MOD (27,8)?
(a) 3 (b) 2
(c) 1 (d) 0

- Consider the following statements relating to Python programming:
A. try and except blocks are used to deal with an exception.
B. an assert statement is used to test an expression in the program code.

Choose the correct answer from the options given below:

- (a) A is false (b) B is false
(c) A is true and B is false (d) Both A and B is true
- Consider CUSTOMERS table having the following records:

ID	NAME	AGE	ADDRESS	SALARY
1	Ravi	40	Delhi	12000
2	Sudhansh	36	Delhi	30000
3	Divakar	42	Delhi	80000
4	Ajay	50	Delhi	65000
5	Mohit	30	Delhi	25000

SELECT NAME, ADDRESS FROM CUSTOMERS
WHERE AGE > 45 AND SALARY < 80000

What will be the output of the above query?

- (a) Ravi Delhi (b) Ajay Delhi
(c) Mohit Delhi (d) Divakar Delhi

- Match List I with List II.

List I

List II

- | | |
|--|--------------|
| (A) Connects LAN to the internet | (I) Repeater |
| (B) Connects multiple computers together in LAN | (II) Gateway |
| (C) Works with regeneration of signals | (III) Switch |
| (D) Key access point between an organisation network and the outside world | (IV) Router |

Choose the **correct** answer from the options given below:

- (a) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)
(b) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
(c) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)
(d) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- _____ exception is raised when an operator is supplied with a value of incorrect data type:
(a) Index Error (b) Name Error
(c) Type Error (d) Value Error

- Which of the following statements(s) is/are incorrect:
(A) Gateway serves as the entry and exit point of network
(B) The arrangement of computers and other peripherals in a network is called its topology
(C) In star topology, each node is connected to two other devices one each on either side
(D) In mesh topology, each device is connected with every other devices in the network
(E) MAC address contains 48 bits

Choose the **correct** answer from the options given below:

- (a) (A), (B) and (D) Only
(b) (B), (C) and (D) Only
(c) (A) and (E) Only
(d) (C) Only
- Consider the following statements relating to network topology:
(A) In star topology disturbance in one device connected to central networking device will not affect the rest of the network
(B) Link between nodes in ring topology is unidirectional

Choose the **correct** answer from the options given below:

- (a) Both (A) and (B) are false
 (b) Both (A) and (B) are true
 (c) (A) is false and (B) is true
 (d) (A) is true and (B) is false

12. Consider the following relation:

Book

ISBN	Author	Title	Price	Pages
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What is the degree of above relation:

- (a) 1 (b) 2
 (c) 4 (d) 5

13. Which of the following is not true about a relation?

- (a) Each attribute has a unique name.
 (b) All data values in an attribute must be of same type.
 (c) Sequence of attributes in a relation matters.
 (d) No attribute can have many data values in one tuple.

14. In python which of the following is not used in exception handling?

- (a) try (b) except
 (c) finally (d) for

15. How many tuples will be in the output of the query:

Select* from Uniform U, Cost C where U.U_code = C. U_code:

Uniform table		
U_code	U_name	U_color
1	Shirt	White
2	Pant	Grey
3	Tie	Blue

Cost table		
U_code	Size	Price
1	L	580
1	M	500
2	L	890
2	M	810

- (a) 4 (b) 12
 (c) 3 (d) 14

16. _____ follows the principle of first come first serve approach.

- (a) Stack (b) Queue
 (c) Deque (d) Array

17. Data which is organised and can be recorded is a well defined format is called _____ data:

- (a) Unstructured
 (b) Meta-Data
 (c) Structured
 (d) Semi-Structured

18. Consider the two relations:

Dance

Roll	Name	Age
1	Aastha	13
2	Mohit	14
3	Isha	13
6	Abhay	12

Music

Roll	Name	Age
2	Mohit	14
3	Isha	13
4	Muskan	12
5	Prakriti	13

What will be output for Dance U Music?

(a)

Roll	Name	Age
2	Mohit	14
2	Isha	13

(b)

Roll	Name	Age
1	Aastha	13
2	Mohit	14
3	Isha	13
6	Abhay	12
4	Muskan	12
5	Prakriti	13

(c)

Roll	Name	Age
1	Aastha	13
2	Mohit	14
3	Isha	13
6	Abhay	12
2	Mohit	14
3	Isha	13
4	Muskan	12
5	Prakriti	13

(d)

Roll	Name	Age
1	Aastha	13
6	Abhay	12
3	Isha	13
5	Prakriti	13

19. Match List I with List II

List I	List II
(A) DATA BASE SCHEMA	(I) Request to a database for obtaining information in a desired way
(B) DATA DICTIONARY	(II) Snapshot of database
(C) DATABASE QUERY	(III) Database schema along with various constraints on the data stored in DBMS is a database catalog
(D) DATABASE INSTANCE	(IV) Design of the database

Choose the **correct** answer from the options given below:

- (a) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
 (b) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
 (c) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)
 (d) (A)-(IV), (B)-(II), (C)-(I), (D)-(III)

20. An algorithm having a single loop will have the time complexity as order of:

- (a) 1 (b) n
 (c) n^2 (d) $\log_2 n$

21. Consider the following python code:

```
m1 = open("myfile.text", "w+")
m1.write("I am working on python IDLE")
a = m1.tell()
m1.close()
print(a)
```

Give the value of a:

- (a) 0 (b) 27
 (c) 28 (d) -1

22. Infix expression $(a + b) / (c * 8)$ is equivalent to _____ as post fix expression?

- (a) $ab + c8*/$ (b) $ab/+c8*$
 (c) $ab + *c8/$ (d) $/+ab*c8$

23. The standard deviation of awarding marks to 10 students as given below will be:

S.no.	Marks
1	80
2	70
3	60
4	90
5	50
6	60
7	70
8	70
9	60
10	90

- (a) 12.65 (b) 14.5
 (c) 13 (d) 160

24. Match List I with List II.

List I	List II
(A) Bubble sort	(I) Identifying a slot for the second and further items in the Hash table in the event of collision
(B) Selection sort	(II) Sorting algorithm that works by repeatedly swapping the adjacent elements
(C) Insertion sort	(III) The smallest element is selected from the unsorted array and swapped with the left most element
(D) Collision resolution	(IV) Places the element of a list at its suitable place in each pass

Choose the **correct** answer from the options given below:

- (a) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
 (b) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
 (c) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)
 (d) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)

25. Which of the following is not a limitation of file system?

- (a) Data storage (b) Data Redundancy
 (c) Data inconsistency (d) Data isolation

26. INSERTIONSORT (numlist, n)

step 1 : SET $i = 1$

step 2 : WHILE $i < n$ REPEAT STEPS 3 to 9

step 3 : $temp = numlist[i]$

step 4 : SET $j = i - 1$

step 5 : WHILE $j > 0$ and $numlist[j] > temp$, REPEAT STEPS 6 to 7

step 6 : $numlist[j + 1] = numlist[j]$

step 7 : SET $j = j - 1$

step 8 : _____

step 9 : set $i = i + 1$

What will be the appropriate statement at step 8:

- (a) $numlist[j] = temp$
 (b) $numlist[j + 1] = temp$
 (c) $numlist[j + 1] = temp$
 (d) $numlist[j + 2] = temp$

27. What will be state of the list (given below) after pass 2 using selection sort:

List

8	7	13	1	-9	4
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(a)	-9	8	7	13	1	4
(b)	-9	7	8	1	4	13
(c)	-9	1	7	13	8	4
(d)	-9	1	13	8	7	4

28. _____ method is used to position the file object *f* at the end of a file:

- (a) *f.seek(0)* (b) *f.seek(0,1)*
(c) *f.seek(0,-1)* (d) *f.seek(0,2)*

29. Consider the implementation of a queue using list below:

- (a) Either end of the list can be used as Front or Rear of the queue
(b) Index [0] must be used as Front
(c) Index [n-1] must be used as Rear
(d) Index [n-1] must be used as Front

30. What is the full form of ICT?

- (a) Information and Communication Technology
(b) Interactive Communication Technology
(c) Intelligent Communication Technology
(d) Intelligent Command Tools

31. Choose the **correct** options from the given below:

- (A) Range is the difference between maximum and minimum values
(B) Mean is the data value that appears most number of times
(C) Median is the average of given values
(D) Mean is the average of given values
(E) Mode is the data value that appears most number of times

Choose the **correct** answer from the options given below:

- (a) (A), (B) and (E) Only
(b) (B) and (C) Only
(c) (A), (D) and (E) Only
(d) (C) and (E) Only

32. Identify the incorrect application of stack:

- (a) Standing in a line for ration
(b) Bangles worn on a wrist
(c) Pile of clothes in an almirah
(d) Multiple chairs in a vertical pile

33. The postfix expression $782*4/+$ evaluates to _____.

- (a) 112 (b) 12
(c) 11 (d) 10

34. Which of these is a limitation of a DBMS?

- (a) Data Consistency
(b) Data Representation
(c) Increased Complexity
(d) Data Independence

35. Which of the following is not an operation on queue?

- (a) IS empty (b) POP
(c) PEEK (d) IS full

36. Consider the following table named "Product" showing details of products being sold in a stationery shop:

Pcode	Pname	Uprice	Manufactures
P01	Pen	70	Reynolds
P02	Pencil	50	DOMS
P03	Eraser	20	DOMS
P04	Sharpener	20	DOMS

P05	Stapler	200	Kangaroo
P06	Notebook	80	Classmate
P07	Dairy	260	Classmate

Find the output produced by the query:

Select DISTINCT Manufactures from Product:

(a)

Reynolds
DOMS
DOMS
DOMS
Kangaroo
Classmate
Classmate

(b)

Reynolds
DOMS
Kangaroo
Classmate

- (c) 5 (d) 7

37. Consider the following table named "Product" showing details of products being sold in a stationery shop:

Pcode	Pname	Uprice	Manufactures
P01	Pen	70	Reynolds
P02	Pencil	50	DOMS
P03	Eraser	20	DOMS
P04	Sharpener	20	DOMS
P05	Stapler	200	Kangaroo
P06	Notebook	80	Classmate
P07	Dairy	260	Classmate

Identify the correct query to display all DOMS products with unitprice (Uprice) greater than or equal to 70.

- (a) Select * from Product where manufacturer = "DOMS" or Uprice >= 70;
(b) Select * from Product where manufacturer = "DOMS" or Unitprice >= 70;
(c) Select * from Product where manufacturer = "DOMS" or Uprice >= 70;
(d) Select * from Product where manufacturer = "DOMS" or Unitprice >= 70;

38. Consider the following table named "Product" showing details of products being sold in a stationery shop: Find the output for the given query:

Select sum (Uprice)/count (Uprice) from Product:

- (a) 700/7
(b) 100
(c) 100.8
(d) no output

39. Find the missing part in the given SQL query to display records of DOMS or kangaroo:

Select * from Product where _____.

(a) manufacturer = "DOMS or Kangaroo";
 (b) manufacturer IN =("DOMS: "Kangaroo";
 (c) manufacturer IN =("DOMS: "Kangaroo";
 (d) manufacturer = "DOMS" or manufacture = "Kangaroo";

40. Which command is used to delete the DOMS record:

(a) Drop from Product;
 (b) Drop from Product where Manufacturer = "DOMS";
 (c) Delete from Product where Manufacturer = "DOMS";
 (d) Delete from Product;

41. Lomba enterprises is planning to setup a network in "Mumbai" for its web based activities. It is having 4 buildings. Answer the questions below after going through the building position and other details, which are given below:



Distance Between Buildings	
A to B	40 m
B to C	60 m
A to D	162 m
C to D	190 m
A to C	102 m
B to D	125 m

No. of Computers	
A	25
B	150
C	51
D	10

Suggest the most suitable place to install the server:

- (a) Block A (b) Block B
 (c) Block C (d) Block D

42. Which device will you suggest to be placed/installed between Block C and Block D, to regenerate the signals in the network?

- (a) Repeater (b) Router
 (c) Gateway (d) Switch

43. Suggest the device to be placed/installed in each Block, to connect the computers in that Block:

- (A) Modern (B) Switch
 (C) Hub (D) Repeater
 (E) Analyser

Choose the correct answer from the options given below:

- (a) (B) and (E) Only (b) (A) and (B) Only
 (c) (A) and (D) Only (d) (B) and (C) Only

44. Which wireless channel out of the following should be opted by the company to connect their office with the head office situated in London:

- (a) Microwave (b) Infrared
 (c) Satellite (d) Optical fibre

45. Which type of network out of following is formed by connecting computers of these four Blocks with the head office in London:

- (a) LAN (b) PAN
 (c) WAN (d) MAN

46. Match List I with List II.

List I

(A) $xy^*z +$

(B) Evaluation of postfix expression

(C) Addition/Deletion of item

(D) $+z^*xy$

List II

(I) TOP

(II) Polish notation

(III) Reverse polish notation

(IV) Stack

Choose the **correct** answer from the options given below:

(a) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)

(b) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)

(c) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

(d) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

47. Consider a list given below:

numList = [2, 3, 5, 7, 10, 11, 12, 17, 19, 23, 31, 41, 43]

the number of comparison required to search key 19 using binary search

- (a) 2 (b) 3
 (c) 1 (d) 4

48. A list contains n unsorted elements. If key to be searched is not present in the given list. Then how many comparison required to check given key is present or not in the list.

- (a) 1 (b) $n-1$
 (c) n (d) $n+1$

49. Match **List I** with **List II**. Match the errors with their explanation:

List I

(A) Value Error

(B) EOFError

(C) Type Error

(D) Syntax Error

List II

(I) An operator is supplied of value of incorrect data type

(II) When a function receives mismatched values

(III) When there is an error in syntax

(IV) End of file condition is reached without reading any data input()

Choose the **correct** answer from the options given below:

(a) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

(b) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)

(c) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)

(d) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)

50. What sequence of steps will be taken after error is encountered in a method?

- (A) Exception is raised
- (B) Program terminates
- (C) Runtime system searches for exception handler in current method
- (D) Creates an exception object
- (E) Searches for method in call stack in reverse sequence and then executing of code

Choose the **correct** answer from the options given below:

- (a) (A), (C), (D), (E), (B)
- (b) (D), (A), (C), (E), (B)
- (c) (A), (B), (D), (E), (C)
- (d) (D), (C), (A), (E), (B)