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FOR KARNATAKA CLASS 12 PREPARATION

Karnataka 2nd PUC Model Question Paper 2027 for Computer Science (Paper 2)

EXAM	YEAR	TYPE	SUBJECT
Karnataka Class 12	2027	Sample Paper	Computer Science

GOVERNMENT OF KARNATAKA
KARNATAKA SCHOOL EXAMINATION AND ASSESSMENT BOARD
6TH CROSS, MALLESHWARAM, BENGALURU – 560 003
2026 -27 II PUC MODEL QUESTION PAPER – 2

SUBJECT : COMPUTER SCIENCE (41) **MAXIMUM MARKS – 70**
TIME : 03 HRS **NUMBER OF QUESTIONS - 44**

PART A

Answer ALL the questions. Each question carries ONE mark.

I. Select the correct answer from the choices given. **20 x 1 = 20**

1) Given Q=N/D, if D=0 and N=50, which built-in exception occurs?

a. SyntaxError b. IndexError c. ValueError d. ZeroDivisionError

2) The function which returns an integer that specifies the current position of the file object in the file is

a. seek b. load c. tell d. dump

3) Assertion (A): Stack data structure is used in accessing link of the last visited webpage.
Reason (R): The ordering principle is FIFO.

a. A is true, R is the correct reason.

b. A is true, R is not the correct reason.

c. A is false, R is correct reason.

d. A is false, R is not correct reason.

4) An arrangement of linear data structure in which addition and removal of elements can happen from any end is known as

a. Stack b. Queue c. Deque d. Enqueue

5) Changing the position of two elements with each other means

a. Sorting b. Hashing c. Swapping d. Searching

6) The nested loop will have the time complexity as

a) n^2 b) log n c) 1 d) n

7) Identify the DBMS software

a. Microsoft Access b. Microsoft Outlook

c. Microsoft PowerPoint d. Microsoft Excel

8) The symbol used to represent intersect operation is

a. U b. ∩ c. X d. –

9) Which datatype is used to hold numbers with decimal points in MYSQL?

a. FLOAT b. DATE c. INT d. INTEGER

10) The clause used to enforce condition is

a. distinct b. group by c. order by d. where

11) Conversion of the domain name of each web server to its corresponding IP address is

a. Network b. Domain Name System c. URI d. Domain Name Resolution

12) Printing of documents with in a building, can be done by using which type of network?

a. MAN b. WAN c. LAN d. PAN

13) Mobile phones are example of which type of data communication?

a. Full duplex b. Simplex c. Half-duplex d. Semi Duplex

14) With respect to bandwidth how many hertz can make 1 KHz?

a. 10 b. 100 c. 1000 d. 10000

15) The malware that targets user data is

a. Spyware b. Worms c. Ransomware d. Trojan

II. **Fill in the blanks choosing the appropriate word/words from those given in the brackets.**

(lcase, redundancy, between, throwing , ucase, serialization)

16) The process of creating an exception object and handing it over to the runtime system is called _____an exception.

17) _____process is also called as pickling.

18) _____means same data are duplicated in different places (files).

19) _____operator defines the range of values inclusive of boundary values.

20) The function that converts string into uppercase is _____.

PART B

Answer any FOUR questions. Each question carries TWO marks **4 x 2 = 8**

21) Write implementation of stack in python to check whether the stack is empty or not.

22) For the elements z, x and c perform enqueue and dequeue operations.

23) Define the terms

a) Hashing

b) Perfect hash function

24) List any two uses of database in real life application.

25) Why is delete statement used for? Write its syntax.

26) Write a note on bus topology.

27) Mention different types of switching techniques.

PART C

Answer any FOUR questions. Each question carries THREE marks **4 x 3 = 12**

28) What is the purpose of assert statement? Write its syntax and give an example.

29) Write a note on text files.

30) Write a bubble sort algorithm to sort a list in ascending order.

31) List the three possibilities that can occur in binary search.

32) Explain limitations of manual record keeping.

33) Differentiate between single and multiple row functions.

34) Expand the following

a) MAC

b) HTTP

c) URI.

PART D

Answer any FOUR questions. Each question carries FIVE marks **4 x 5 = 20**

35) Convert the following infix notation A+B-C*D to postfix notation showing stack and string contents at each step.

36) Define Deque and explain the operations on Deque.

37) Give the other name of linear search and write an algorithm to find position of an element using linear search method.

38) Define the below terms:

a. attribute

b. tuple

c. domain

d. degree

e. cardinality

39) Explain different network devices used to configure networks.

40) What are the three categories of wired media? Explain any two.

41) List and explain different types of security threats.

PART E

Answer any TWO questions. Each question carries FIVE marks **2 x 5 = 10**

42) Arrange the below elements using insertion sort algorithm 4, 3, 10, 1, -6, 2

43) Consider the temperature of 7 days of a week as 34, 34, 27, 28, 34, 34, 33. Identify the appropriate statistical technique used to calculate the following

a. Find the average temperature.

b. Find the temperature range of temperature

c. Find the standard deviation of the temperature

44) Given the table ,table name being product write the queries for the below questions.

PCode	Pname	Uprice	Manufacturer
P01	Washing powder	120	Surf
P02	Tooth paste	54	Colgate
P03	Soap	25	Lux
P04	Tooth paste	65	Pepsodent
P05	Soap	43	Dove
P06	Shampoo	245	Dove

i) Identify the primary key in the product table

ii) List the product code, product name and price in descending order of their product name

iii) Add a new column discount to the product table

iv) Calculate the value of the discount in the table product as 10% of the Uprice for all those products where the Uprice is more then 100, otherwise the discount will be 0.

v) Increase the price by 12% for all the products manufactured by Dove.

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