

Sub.Code : 4281'C'

NEB - GRADE XII
2083 (2026)
Computer Science

(For regular and partial students whose first two digits of registration number starts from 79, 80, 81 and 82)

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Group 'A'

Multiple choice questions.

[9×1=9]

Rewrite the correct option of each question in your same answer sheet.

1. Records in database are also known as
A) ~~Data~~ B) Fields C) Tuples D) Keys
2. Which SQL statement displays the name and address of all students who live either in Kathmandu or Bhaktapur from students table ?
A) ~~SELECT *FROM students WHERE address = "Kathmandu" or address = "Bhaktapur";~~
B) SELECT name, address FROM Students WHERE address = "Kathmandu" or "Bhaktapur";
C) SELECT *FROM students WHERE address = "Kathmandu" or "Bhaktapur";
D) ~~SELECT name, address FROM students WHERE address = "Kathmandu" or address = "Bhaktapur";~~
3. The full form of OSI is
A) Open Service Implementation
B) Open System Internet
C) Open Service Interconnection
D) ~~Open System Interconnection~~
4. Which JavaScript method is used to write HTML output ?
A) ~~document.write ()~~ B) document.output ()
C) console.log () D) document.write HTML ()

Contd...

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(2)

5. What will be the output of the following PHP code ?

```
<?php $a = 10; $b = 5;  
    echo $a%$b; ?>
```

A) 0

B) 1

C) 2

D) 5

6. What does ++X do in a C program ?

A) Returns value then increments

B) Increments then return value

C) Decrement value

D) Returns original value

7. Which of the following feature to allow the same method name to be used for different types/number of parameters in OOPs, concept ?

A) Abstraction

B) Encapsulation

C) Polymorphism

D) Inheritance

8. Which model follows a strict linear sequential phase order ?

A) Agile

B) Waterfall

C) Prototype

D) Scrum

9. A device automatically adjusts room temperature based on real time sensor data and internet connectivity. Which technology does this represent ?

A) Desktop computing

B) Cloud storage

C) IoT (Internet of Things)

D) Traditional Embedded System

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Time: 2 hrs.

Full Marks: 50

Group 'A'

[9×1=9]

Question No. 1 to 9 (Multiple Choice Questions) will be provided after 30 minutes of starting examination. Rewrite its (MCQ) correct option (answer) in the same answer sheet.

Group 'B'

Short answer questions

[5×5=25]

10. Compare the hierarchical database model and the relational database model. Write two advantages of each model. [3+2]

OR

Describe 2NF with example. [5]

11. Write a JavaScript program that accepts three numbers as input and find smallest among them. [5]

OR

Write a PHP script that connects to a MYSQL database named school, retrieves all records from the student table, and displays them in an HTML table. [5]

12. What is OOP (Object Oriented Programming) ? Describe any four features of OOP. [1+4]
13. Explain about technical and economic feasibility. [2.5+2.5]
14. Explain the basic concept of cloud computing with any three advantages. [2+3]

Group 'C'

Long answer questions

[2×8=16]

15. Explain twisted pair cable, coaxial cable and optical fibre cable. [8]
16. a) Write a C program to input a number and check whether it is positive or negative or zero using user-defined function. [4]
- b) Write a C program to generate the Fibonacci series of the first two numbers, 7 and 14, up to 10 terms using a user-defined function. [4]

OR

Write a C program that reads the student's roll number, name, section and mark of 10 students using an array of structure and display. [8]