

**NEB – GRADE XII  
2080 (2023)**

**Computer Science**

**Grade Increment (Supplementary) Examination**

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

**Time: 2 hrs.**

**Full Marks: 50**

**Group ‘A’**

**Very short answer questions.**

**9×1=9**

1. Which SQL keyword is used to retrieve data from a table?  
(a) SELECT      (b) FROM      (c) WHERE      (d) JOIN
2. Which of the following principle apply to 2NF?  
(a) a table must have a primary key  
(b) all non-key attributes must be dependent on the primary key  
(c) all attributes must be atomic  
(d) a table must have at least more than two attributes
3. Which of the following is a device that connects two or more networks and can filter and forward network traffic based on its destination address?  
(a) switch      (b) router      (c) hub      (d) modem
4. Which JavaScript function use to text input?  
(a) alert()      (b) prompt()      (c) confirm()      (d) console.log()
5. Which of the following PHP functions is used to connect to a MySQL database?  
(a) mysql\_connect()      (b) mysqli\_connect()  
(c) pdo\_connect()      (d) db\_connect()
6. What is the correct way to open a file named “data.txt” in C for reading?  
(a) fopen(“data.txt”, “r”);      (b) fopen(“data.txt”, “w”);  
(c) fopen(“data.txt”, “a”);      (d) fopen(“data.txt”, “rb”);
7. Which of the following concepts in object-oriented programming refers to binding data and function into a single unit.  
(a) Encapsulation      (b) Abstraction  
(c) Polymorphism      (d) Inheritance
8. What does the term “QA” stand for in the software development process?  
(a) Quality Assurance      (b) Quality Analysis  
(c) Quality Assessment      (d) Quantity Assurance
9. What type of communication technology is commonly used in IoT devices?  
(a) Wi-Fi      (b) Bluetooth      (c) Zigbee      (d) All of the above

### **Group 'B'**

#### **Short answer questions**

**5×5=25**

- 10.** Describe the second normal form (2NF) with an example.

**OR**

What are the importance of database security in database management systems? Describe.

- 11.** How do you add an event handler in JavaScript? Give an example.

**OR**

Explain the database connection PHP function for MySQL.

- 12.** Describe the object and class in OOPs with an example.

- 13.** Explain the agile software development methodology in brief.

- 14.** Give any five examples of AI related applications.

### **Group 'C'**

#### **Long answer questions**

**2×8=16**

- 15.** Compare the bus and star network topology. Which of the network cable is suitable to design star topology in the school's network? Justify. 4+4

- 16.** Write a program to store five employees' records (EID, Name, post and department) and display them using structure.

**OR**

Describe file handling modes on C. Write a C program to create and write data into a file.

**4+4**

**THE END**