

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI-15**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  
**B.TECH. DEGREE, V SEMESTER, I CYCLE TEST, AUG-2024**  
**CSPC52 - Database Management and Systems**

**DATE: 28-08-2024**

**TIME: 10.30 a.m. – 11.30 a.m.**

**MAX.MARKS:20 marks**

**Answer all Questions**

**4 x 5=20 marks**

1. Explain the difference between two-tier and three-tier architectures. Which is better suited for web applications? Why?
2. Design an online E-Shopping information system using Python and MySQL.  
Product (productid, name, price, quantity, amount)  
Implement insertion and display details module.
3. Consider the following relational database.  
employee (e\_id, e\_name, designation, contact\_no)  
works (e\_id, c\_name, salary)  
company (c\_name, b\_name, city)  
o Write a function to display the maximum salary drawn by an employee.  
o Create a trigger to store the details of an employee in a log file once the contact \_no of an employee is updated.
4. Construct an E-R diagram for a hospital with a set of patients and a set of medical doctors. Associate with each patient a log of the various tests and examinations conducted. Convert the above E-R diagram into a set of relations. Convert the E-R diagram into a set of relations to represent a strong entity, weak entity, relationship set and multivalued attributes.

-----Best Wishes-----