

Reg. No.:

Name:



**VIT**<sup>®</sup>  
**BHOPAL**  
www.vitbhopal.ac.in

**TERM END EXAMINATIONS (TEE) – December 2021- January 2022**

<b>Programme</b>	<b>B.Tech. Computer Science and Engineering with (Specialization in Cyber security and Digital Forensics)</b>	<b>Semester</b>	<b>Fall 2021-22</b>
<b>Course Name</b>	<b>Forensic Chemistry and Applications</b>	<b>Course Code</b>	<b>CHY1007</b>
<b>Faculty Name</b>	<b>Dr. Saurabh Bhargava</b>	<b>Slot / Class No</b>	<b>C11+C12+C13/0279</b>
<b>Time</b>	<b>1½ hours</b>	<b>Max. Marks</b>	<b>50</b>

**Answer ALL the Questions**

Q. No.	Question Description	Marks
--------	----------------------	-------

**PART - A (30 Marks)**

1. (a) Mr. O J Simpson, one of the most celebrated athletes of USA during 1970-80s was arrested on double murder charges involving his ex-wife and her friend. The trial that followed was called as the *trial of millennium*, acquitted O J Simpson of all charges. Can you explain the role of forensics in the O J Simpson murder trial? Also, evaluate the impacts of this trial on development of forensic science. 10

OR

- (b) A soil sample from tyre marks of a car belonging to a suspected murder accused has been retrieved. The investigation team wants you to compare the questioned soil sample with reference sample from the site where the body of the victim is located. Provide the scheme of analysis and demonstrate with working mechanism which technique you will use to establish the origin of questioned soil sample. 10
2. (a) As a forensic expert, you received a document with suspicious alterations in written texts. You have also been provided with three different pens one of which might be used to alter the questioned document. Provide the schematics how you'll proceed with preliminary and confirmatory ink analysis. 10

OR

- (b) What sections of NDPS Act of India deals with illegal possession and selling of narcotic substances. State the amendments made on NDPS Act in 2014, and justify how these amendments are progressive. 10

3. (a) A white colored powder suspicious to be amphetamine is seized at international airport. How would the authorities proceed with field diagnostics testing? Suggest and demonstrate the working of field diagnostic tests for amphetamine, and suggest the further analysis if these field tests are found to be positive. 10

OR

- (b) As an arson investigation team member, you are visiting a suspicious arson scene. How will you differentiate arson from accidental fire? If proved a case of arson, how will you determine what accelerant has been used in arson? 10

**PART - B (20 Marks)**

4. How would you proceed with latent fingerprint development when you are aware that the water content from finger print residue is evaporated completely? Suggest methods and their limitations. 10
5. Differentiate between RDX and Dynamite based on their manufacturing process. What are the chemical tests that can be performed to prove nitrites/nitartes in explosive residues? 10

