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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

August 2023 Semester End Make-Up Examinations

Programme: B.E.

Branch: All Branches

Course Code: 21BT8IEFRS

Course: Forensic Science

Semester: VIII

Duration: 3 hrs.

Max Marks: 100

Date: 09.08.2023

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I			CO	PO	Marks
1	a)	Discuss the powers of different courts in India. Differentiate the following: i. Dying declaration and dying deposition ii. Examination-in-chief and cross examination	<i>CO1</i>	<i>PO</i>	10
	b)	A person was stabbed by two men in broad daylight when he came out of a bank. He died on the way to the hospital. Elaborate on how you will conduct the inquest as an investigating officer to this case.	<i>CO2</i>	<i>PO1</i>	10
UNIT - II					
2	a)	A couple report a missing complaint of their daughter who is 22 years old who was returning from work. After conducting a search operation, you observe from a CCTV camera that she was abducted in a van. The abandoned van is found after couple of days near an isolated highway next to a lake and there is a forest area 2km away from the lake. As an investigating officer, which method you will instruct your team to follow to search for clues or evidences with justification for your choice. Sketch and explain the method. State also what and where to look for the evidences with respect to this crime stating reasons.	<i>CO2</i>	<i>PO1</i>	10
	b)	A 30 year old famous actor was found dead hanging from a ceiling fan in her apartment. Police found a suicide note in her room but her family members request for detailed enquiry as they are suspicious and police officer-in-charge send the evidences collected at the crime scene to forensics lab for analysis. Explain the role of biology, physics and documentation division of the forensic science laboratory with respect to this case.	<i>CO2</i>	<i>PO1</i>	10
		OR			

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

3	a)	<p>The following evidences were collected from a hit-and-run accident location. Classify with necessary justifications the following physical evidences as individual and class evidences with respect to the mentioned case:</p> <ol style="list-style-type: none"> Glass Blood Soil Tyre marks Fingerprints 	CO3	PO2	10
	b)	<p>A 16 year old girl was hit by a bike and assaulted by pouring acid on her. The survivor lodges a complaint against the perpetrators. Pertaining to this case, categorically list and describe the possible physical evidences which play a crucial role in linking the crime scene, victim and a perpetrator. In addition, explain about the collection and packing process for the listed physical evidences.</p>	CO3	PO2	10
UNIT – III					
4	a)	<p>A 36 year old man was found dead near a forest area with wounds on his head, neck, face and arms. Bloodstain samples were collected from victim's body, clothes and other objects at the crime scene. Explain a specific test to confirm the following:</p> <ol style="list-style-type: none"> The stain samples collected from crime scene is blood. If the blood is of human or animal Blood group identification 	CO3	PO2	10
	b)	<p>A LPG gas explosion has led to fire accident inside a house in your jurisdiction. You are the investigative officer-in-charge and arrive at the crime scene with your team after receiving a phone call about the incident. On arriving at the crime scene, you notice that there is a dead body more than 80% burnt. Neighbours inform you that, a recently married young couple lived in the house and that the lady was alone at home and her husband had gone out of station and has been notified about the mishap. When searching for evidence, you find some pieces of fiber cloth on the victim and stuck to back door of house. Do you think it would be a useful evidence for investigations? Recommend and explain any one microscopic and chromatography analysis for testing this fiber. What kind of interpretations are you expecting to arrive at through these analysis?</p>	CO3	PO2	10
OR					
5	a)	<p>A 60 year old man dies from hit and run accident at a highway. Police-officer in charge arrives at the crime scene and his team starts collecting the evidences. Do you think paint samples are significant as physical evidence in this case? If yes, explain what information we can get from paint samples collected in this crime scene. Also explain the techniques used for paint analysis with a suitable diagram.</p>	CO 3	PO2	10

	b)	Hairs are least to be degraded compared to the other physical evidences. A body has been degraded completely. Only hairs were abundant at the crime scene and were collected for the analysis. How do you examine these collected hairs with various possible methods in the forensic laboratory and interpret the results.	CO2	PO1	10
		UNIT - IV			
6	a)	Discuss the types of hallucinations and impulses which are tested under forensic Psychiatry.	CO3	PO2	10
	b)	Investigative officer arrive at the crime scene after getting complaints from neighbours about stinking smell from a garden of particular house. After digging the garden area, they find a decomposed body. Physical evidences from victim body and at the vicinity of crime scene are collected carefully and the decomposed body is sent for autopsy and post-mortem. Explain how the forensic pathologist will take it forward from here to conduct tests and interpret the results.	CO3	PO2	10
		UNIT - V			
7	a)	<p>In 2017 a hacker broke into the security of Zomato, one of the biggest online restaurant guides and food ordering apps. The hacker was after five things.</p> <ul style="list-style-type: none"> (i) Names (ii) Emails (iii) Numeric user IDs (iv) User names (v) Passwords <p>The amount of data lost was in the millions as 17 million users were targets. The hacker was able to put up this information on the darknet for anyone to buy before starting talks with the company.</p> <p>Which type of computer crime category does this belong to? How is it different from other types of computer crimes?</p> <p>What are the implications of the absence of national cybercrime laws?</p>	CO2	PO1	10
	b)	Justify the need of ethics in forensic science with suitable reasoning.	CO2	PO1	10
