

FORENSIC MEDICINE

PAPER- I

Time : 3 hours

FOREN/D/11/09/I

Max. Marks : 100

Attempt all questions in order.

Each question carries 10 marks.

1. How do we classify allergies? Give various tests for allergies. What are its medico-legal implications? 3+3+4
2. What are the various infectious diseases and agents that can be transmitted at autopsy? How is an adequate knowledge of Microbiology helpful in conducting autopsy? How is an adequate knowledge of microbiology helpful in conducting autopsy in such cases safely? 5+5
3. What is an immunoassay? Enumerate and discuss some major forensic applications of immuno-assays? 5+5
4. How would you determine the age of myocardial infarct at autopsy? 10
5. What are the various theories regarding the origin of fat embolism? Give the merits and demerits of each. 5+5
6. What are Sheehan's hemorrhages? Give their significance in Forensic Medicine. 3+7
7. What is asphyxiophilia? Give the main features of autoerotic asphyxiation in a female. How would you investigate such a case as a forensic pathologist? 1+2+7
8. What are "plaques jaunes" and retraction balls? Give their significance in forensic neuropathology. 5+5
9. What is "erythema ab igne" (EAI)? Give its forensic importance. 2+8
10. Define battered baby syndrome. Mention the predisposing factors and the type and nature of injuries sustained by the victim. 2+4+4

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PAPER- II

Time : 3 hours
Max. Marks : 100

FOREN/D/11/09/II

Attempt all questions in order.
Each question carries 10 marks.

1. How age is determined by Greulich and Pyle method? Please give the anatomical basis behind it. 5+5
2. What are cremains? How do we classify burnt bones according to their different grades of cremation? What information can such bones give us? 3+3+4
3. What is Wolff's law of bone remodeling? How does it help us to determine handedness by examination of bones? How accurate is the determination of handedness from bone examination? 4+4+2
4. What is Criminal Profiling or Criminal Investigative Analysis (CIA)? How does the knowledge of psychology help us in CIA? 5+5
5. What is Münchausen-Syndrome-by-Proxy? Give its main features. 2+8
6. What is SAFEKIT? Explain its method of use. 3+7
7. Compare and contrast in a tabular form the various provisions of McNaughten's Rule, Durham's Rule, Curren's Rule and ALI test. Give hypothetical examples of cases which would be considered legally insane according to each rule, but not by others. 5+5
8. Write short note on somnambulism, semisomnolence and their medico-legal ramifications. 5+5
9. What are the various new features introduced in the examination of rape accused and victim according to s.53A CrPC and s.164A CrPC? 5+5
10. What are the various lab tests and procedures you would recommend to confirm a diagnosis of erectile disorder(ED) or impotence? Give the basis behind each. 6+4

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PAPER- III

Time : 3 hours
Max. Marks : 100

FOREN/D/11/09/III

**Attempt all questions in order.
Each question carries 10 marks.**

1. Explain the pharmacokinetics of ethyl alcohol. How does it help in devising treatment strategies? 5+5
2. What are the legal implications of artificial insemination (AI)? What precautions should be taken to avoid them? 5+5
3. Give a brief account of the important aspects of Mental Health Act 1987:
 - a. Procedures of admission. 3
 - b. Procedures of discharge. 3
 - c. Civil rights – management of property etc. 2
 - d. Experimentation on the mentally ill. 2
4. What are the various ethical guidelines for biomedical research on human subjects laid down by ICMR? 10
5. Define torture? What are the common methods of torture? What are the NHRC guidelines in a suspected case of torture investigation? 1+5+4
6. What are the various changes in blood in chronic lead poisoning? 10
7. Mention the clinical features of acute copper sulphate poisoning. 10
8. What is the mechanism of acetaminophen toxicity? Briefly mention its management. 5+5
9. What are the features of ethylene glycol poisoning? Give the mechanism of action, diagnosis, management and p.m. findings. 2+2+2+2+2
10. Mention the active principles in the fruit of cerbera odollam. Give its clinical features, mechanism of action, management and medicol-egal importance. 2+2+2+2+2

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PAPER- IV

Time : 3 hours
Max. Marks : 100

FOREN/D/11/09/IV

Attempt all questions in order.
Each question carries 10 marks.

1. What is Forensic Specialties Accreditation Board (FSAB)? What are its functions? Is there a need for such a board in India? Why? 2+2+1+5
2. Discuss the salient features of Pharmacology of illicit drugs. 10
3. What is Davidson's body? Explain with a diagram how it is helpful to forensic practitioners. 1+2+7
4. What is mitochondrial DNA? Write a short note on its forensic importance. 5+5
5. What do you understand by ballistics co-efficient? Give the relevant physics behind it and its significance in Forensic Medicine. 5+5
6. Give the composition of black powder. What are the functions of each component? What residues are left after burning of the black powder? Explain with chemical equations. 1+3+3+3
7. What are ladder tears? Describe their pathology and its significance in forensic practice. 2+8
8. Give the pathology of seat-belt syndrome? What are the safety features introduced to prevent the occurrence of this syndrome. 7+3
9. Give the detailed anatomy of female genital tract with a labeled diagram. How does it help in understanding genital injuries during sexual assault? 2+2+6
10. Give the latest developments in Forensic Microbiology that have occurred in the last 10 years. 10
