

April-2001

[KD 180]

Sub. Code : 2084

M.D. DEGREE EXAMINATION.

Branch XIV — Forensic Medicine

(Revised Regulations)

**Paper II — FORENSIC PATHOLOGY, FORENSIC
IMMUNOLOGY AND FORENSIC BIOCHEMISTRY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss "Shock". (25)
 2. Describe the gross and microscopic finding of Pulmonary tuberculosis along with other associated finding seen on autopsy. (25)
 3. Write a note on : (5 × 10 = 50)
 - (a) Crush syndrome.
 - (b) AIDS as an occupational hazard.
 - (c) Medicolegal application of chromatography.
 - (d) Legal framework for Blood transfusion.
 - (e) Falanga.
-

November-2001

[KE 180]

Sub. Code : 2084

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch XIV — Forensic Medicine

Part II

Paper II — FORENSIC MEDICINE, FORENSIC
IMMUNOLOGY AND FORENSIC BIO-CHEMISTRY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. What is Embolism? Classify Embolisms and discuss in detail about Thrombo-Embolism. (25)
2. Due to various reasons/causes, what are the Bio-chemical changes noticed in Blood before and after death? Write in detail. (25)
3. Write briefly on : (5 × 10 = 50)
 - (a) Different Antigen-Antibody tests in Forensic Medicine.
 - (b) Recent advances in Wound Age Estimation.
 - (c) Demonstration of Air-Embolism at Autopsy.
 - (d) Hydrostatic test and its relevance.

oup injuries

March-2002

[KG 180]

Sub. Code : 2084

M.D. DEGREE EXAMINATION.

Forensic Medicine

Part II

Paper II — FORENSIC PATHOLOGY, FORENSIC
IMMUNOLOGY AND FORENSIC BIOCHEMISTRY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Describe the various methods in determining the 'age' of various injuries. (25)
 2. Discuss briefly the various types of Embolism and discuss the techniques for demonstration of fat embolism and air embolism. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Botulism.
 - (b) Role of microbes in putrefaction.
 - (c) Tests for blood stains.
 - (d) Precipitin test.
 - (e) Polygraph.
-

April-2003

[KI 180]

Sub. Code : 2084

M.D. DEGREE EXAMINATION.

Forensic Medicine

Part II

Paper II — FORENSIC PATHOLOGY, FORENSIC
IMMUNOLOGY AND FORENSIC BIOCHEMISTRY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the microbiological applications in the field of Forensic Medicine. (25)
 2. Discuss the pathophysiology and sequelae of Myocardial Infarction. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Ewings postulates
 - (b) Food poisoning
 - (c) Tests for seminal stains
 - (d) AIDS
 - (e) Anaphylaxis.
-

[KJ 180]

Sub. Code : 2084

M.D. DEGREE EXAMINATION.

Forensic Medicine

Part II

Paper II — FORENSIC PATHOLOGY, FORENSIC
IMMUNOLOGY AND FORENSIC BIOCHEMISTRY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks
M.C.Q. : 20 marks

M.C.Q. : Twenty minutes

M.C.Q. must be answered **SEPARATELY** on the
answer sheet provided as per the instructions on
the first page of M.C.Q. Booklet.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

1. Discuss the various blood groups and their medico
legal importance. (15)

2. Discuss the importance of DNA finger printing in
medico legal situations and how will you collect and
forward the samples for DNA profiling. (15)

3. Write short notes on : (10 × 5 = 50)

1. Seminoma.
2. Aschoff bodies.
3. Primary tuberculosis.
4. Sago spleen.
5. Pathogenesis of oedema.
6. Iso enzymes.
7. Carcinogens.
8. Hypergamma globulinaemia.
9. Air embolism.
10. Phagocytosis.

[KL 180]

Sub. Code : 2084

M.D. DEGREE EXAMINATION.

Forensic Medicine

Part II

Paper II — FORENSIC PATHOLOGY, FORENSIC
IMMUNOLOGY AND FORENSIC BIOCHEMISTRY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Discuss the etiology and pathology of
aneurysms of Aorta.

(2) Discuss the process of "Repair". Describe the
methods of estimating the age of a wound.

II. Write short notes on : (10 × 5 = 50)

(a) Rh Incompatibility

(b) Antibodies in SLE

(c) Medicolegal aspects of cloning (Human)

(d) Effects of radiation.

(e) Watson and Crick model of DNA

(f) E.C.G. changes in Hyperkalemia

(g) Nucleotides

(h) Chromatography

(i) Cytokines

(j) Seminal Analysis.

[KM 180]

Sub. Code : 2084

II. Write short notes on :

(10 × 5 = 50)

M.D. DEGREE EXAMINATION

Forensic Medicine

Part II

Paper II — FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND FORENSIC BIOCHEMISTRY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(2 x 15 = 30)

(1) Describe the blood supply to the heart. Enlist sudden deaths due to heart disease. Discuss the post mortem diagnosis of early and delayed deaths due to myocardial infarction.

(2) Define shock. Mention the various types, and discuss the pathogenesis of shock.

AIDS.

(a) Precautions during autopsy on a case of

(b) Fat embolism.

(c) Precipitin test.

(d) Enzyme histochemistry in study of wounds.

(e) Hazards of blood transfusion.

(f) Chemical tests for semen.

(g) Vagal inhibition.

(h) Estimation of time since death from body fluids.

(i) Berry aneurysm.

(j) White cell antigens.

[KO 180]

Sub. Code : 2084

M.D. DEGREE EXAMINATION.

Branch XIV – Forensic Medicine

Paper II —FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND FORENSIC BIOCHEMISTRY

Time : Three hours **Maximum : 100 marks**

Theory : Two hours and forty minutes	Theory : 80 marks
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M.C.Q. : Twenty minutes **M.C.Q. : 20 marks**

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions : (2 × 15 = 30)

(1) Describe in Brief the Blood supply of the Brain. Write about the various Types of Intracranial Haemorrhages.

(2) Write about the Laboratory Diagnosis of HIV Infection. Discuss the medico legal issues involved in the management of a AIDS patient.

II. Write short notes on : (10 × 5 = 50)

(a) Time since Death from the Examination of vitreous Humour.

(b) Drug Idiosyncrasy.

(c) Sudden Death due to Diseases of Respiratory system.

(d) Enzyme Histo chemistry in Antemortem Burns.

(e) Hazards of Blood Transfusion.

(f) **Benzidine Test.**

(g) Specimens to be collected from a victim of Rape.

(h) Acid phosphatase Test.

(i) **Negative autopsy.**

(j) **Cardiac Tamponade.**

[KQ 154]

Sub. Code : 2082

M.D. DEGREE EXAMINATION,

Branch XIV — Forensic Medicine

FORENSIC PATHOLOGY, FORENSIC
IMMUNOLOGY AND FORENSIC BIOCHEMISTRY

(Common to Paper II — (Old/New/Revised Regulations)
(Candidates admitted from 1988-89 onwards) and
Paper II — (For candidates admitted from
2004-2005 onwards)

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(1) Describe the post mortem procedure and
Medicolegal investigations in a case of death due to
bomb explosion. (20)

(2) How will you differentiate Antemortem and
Post mortem injuries? Add a note on enzyme
histo chemistry regarding. (15)

(3) Describe the application of radiology in
forensic medicine. (15)

II. Short notes : (6 × 5 = 30)

(a) Anaphylaxis due to Drug Allergy

(b) Eliza test

(c) Disputed paternity

(d) Chemical tests for semen

(e) Punctate basophilia

(f) Spalding's sign.

[KR 165]

Sub. Code : 2061

M.D. DEGREE EXAMINATION.

Branch XIV — Forensic Medicine

FORENSIC PATHOLOGY, FORENSIC
IMMUNOLOGY AND FORENSIC BIOCHEMISTRY

Common to Paper II – (Old/New/Revised Regulations)
(Candidates admitted from 1988-89 onwards) and
Paper II – (For candidates admitted from 2004-2005
onwards)

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

1. Describe the Post Mortem enzymatic and
biochemical changes with special reference to their
value in determining the TSD. (20)

2. Draw out as a Forensic Pathologist, how will you
plan for the investigation in mass disaster death. (15)

3. Enumerate the 'Artefacts in Forensic Pathology'.
(15)

II. Short notes : (6 × 5 = 30)

(a) Features of entry wound produced by a shot
gun fired from different ranges.

(b) Fat Embolism and autopsy findings

(c) Drug Idiosyncrasy

(d) Spurious wounds of Burn

(e) Auto Erotic asphyxia

(f) Obscure Autopsy.

MARCH 2008**[KS 153]****Sub. Code : 2048**

M.D. DEGREE EXAMINATION.

Branch XIV — Forensic Medicine

Paper II — FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY
AND FORENSIC BIOCHEMISTRY

(Common to all regulations)

Q.P. Code : 202048

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

- I. Write Essay : (2 × 20 = 40)
1. What is Medical and Medico Legal classification of wounds? Discuss the various types of blunt force injuries and the Medico legal importance. (20)
 2. How will you establish the cause of death in a 30-year-old male, who has died suddenly, as due to HIV infection? What will be the autopsy procedure in a case of HIV? (20)
- II. Write short notes on : (10 × 6 = 60)
1. Post Mortem Biochemistry
 2. Germ warfare
 3. Circle of Willis
 4. Gas Chromatography
 5. Secretors
 6. Endotoxic Shock
 7. Interferons
 8. Junk DNA
 9. Malignant hyperthermia
 10. Baro trauma.
-

[KT 153]

September 2008

Sub. Code: 2048

M.D. DEGREE EXAMINATION

Branch XIV – Forensic Medicine

**Paper II – FORENSIC PATHOLOGY, FORENSIC
IMMUNOLOGY AND FORENSIC BIOCHEMISTRY**

(Common to all Regulations)

Q.P. Code : 202048

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 X 20 = 40)

1. Write an essay on DNA typing.
2. Write an essay on clinical and immunological manifestations of anaphylactic reaction.

II. Write short notes on :

(10 X 6 = 60)

1. Red cell enzymes.
 2. Thin layer chromatography.
 3. Histological techniques in diagnosis of myocardial infarction.
 4. Shock lung.
 5. Acid phosphatase test.
 6. Delayed traumatic apoplexy.
 7. Forensic Serology.
 8. Fetal hemoglobin.
 9. Genomes.
 10. Reverse cross matching.
-

March 2009

[KU 153]

Sub. Code: 2048

M.D. DEGREE EXAMINATION

**Branch XIV – FORENSIC MEDICINE
(Common to all candidates)**

**Paper II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY
AND FORENSIC BIOCHEMISTRY**

Q.P. Code : 202048

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions : (2 x 20 = 40)

1. Define embolism. Outline the different forms of embolism and their medico legal injunction.
2. Describe various legal problems involved in cases of organ transplantation.

II. Write short notes on : (10 x 6 = 60)

1. Lucid interval in insane.
2. Legal implication of seminal fluid.
3. Preservation of materials for DNA – analysis.
4. Criminal abortion.
5. Chromatography.
6. Blood group antigens.
7. Locard's principle of exchange.
8. Shock lung.
9. Brain mapping.
10. HLA typing.

March 2010

[KW 153]

Sub. Code: 2048

M.D. DEGREE EXAMINATION

**Branch XIV – FORENSIC MEDICINE
(Common to all candidates)**

**Paper II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY
AND FORENSIC BIOCHEMISTRY**

Q.P. Code : 202048

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 x 20 = 40)

1. Describe the process of healing of wounds and medico legal issues concerned with determination of the age of the wounds.
2. Discuss the procedure of investigations and autopsies of multiple deaths due to bomb blasts. Add a note on the visit and examination of the scene of the incidence.

II. Write short notes on :

(10 x 6 = 60)

1. Ante mortem and post mortem injuries.
2. Fat embolism.
3. Curling's ulcer.
4. CSF examination and time since death.
5. Pugilistic attitude.
6. Railway spine.
7. Presumption of survivorship.
8. Sudden death in sports.
9. Overlying.
10. Obscure autopsy.

MAY 2011

[KY 153]

Sub. Code: 2048

M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE
FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY
AND FORENSIC BIOCHEMISTRY

Q.P. Code : 202048

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Discuss the laboratory diagnosis of HIV infection and medicolegal problems in the management of AIDS patients.	6	15	10
2. Describe the Post Mortem enzymatic and biochemical changes with reference to their value in determining the time since death.	6	15	10
II. Short Questions:			
1. Definition and pathogenesis of atherosclerosis.	3	8	5
2. Viral carcinogens.	3	8	5
3. Enzyme histochemistry in myocardial infarction.	3	8	5
4. Disseminated intravascular coagulation.	3	8	5
5. Red cell enzymes.	3	8	5
6. Thin layer chromatography.	3	8	5
7. Sago spleen.	3	8	5
8. Delayed typed hypersensitivity.	3	8	5
III. Reasoning Out:			
1. Artefacts in forensic pathology.	4	10	5
2. Biochemical tests for semen analysis.	4	10	5
3. Serological tests for pregnancy.	4	10	5
4. Immunological manifestations of drug allergy.	4	10	5
IV. Very Short Answers :			
1. Shock lung.	1	4	2
2. Secretors.	1	4	2
3. Barotrauma.	1	4	2
4. Interferons.	1	4	2
5. Aschoff bodies.	1	4	2
6. Iso Enzymes.	1	4	2
7. Junk DNA.	1	4	2
8. Phagocytosis.	1	4	2
9. Acute Tubular Necrosis.	1	4	2
10. Air embolism.	1	4	2

April 2012

[LA153]

Sub. Code: 2048

M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE
FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND FORENSIC
BIOCHEMISTRY
Q.P. Code : 202048

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Discuss the various types of embolism and the techniques for demonstration of fat embolism and air embolism.	9	15	10
2. Discuss the Microbiological Application in Forensic medicine.	9	15	10
II. Short Questions:			
1. Antigen Antibody test in Forensic Medicine.	3	8	5
2. Primary Shock.	3	8	5
3. Polygraph.	3	8	5
4. Anaphylaxis.	3	8	5
5. Sago spleen.	3	8	5
6. Pathogenesis of Edema.	3	8	5
7. Medicolegal aspects of Cloning.(Human)	3	8	5
8. White cell antigens.	3	8	5
III. Reasoning Out:			
1. Autopsy evidence of cerebral compression.	5	10	5
2. Hit by a speeding Train.	5	10	5
3. Alcohol and heart.	5	10	5
4. Factors affecting Bruising.	5	10	5
IV. Very Short Answers:			
1. Mismatched Blood transfusion.	1	4	2
2. Ewing's Postulates.	1	4	2
3. ATP in Post Mortem Changes.	1	4	2
4. Nuclear Sexing	1	4	2
5. Histopathological changes in Myocardium.	1	4	2
6. Chromatography.	1	4	2
7. Malignant hyperthermia.	1	4	2
8. Barr Bodies.	1	4	2
9. Blood Stain Test.	1	4	2
10. Precipitin test.	1	4	2

[LB153]

OCTOBER 2012

Sub. Code: 2048

M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE
FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND FORENSIC
BIOCHEMISTRY
Q.P. Code : 202048

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Discuss the Postmortem enzymatic and biochemical changes with special references to their values in determining the TSD	9	15	10
2. Describe various legal problems involved in cases of Organ transplantation.	9	15	10
II. Short Questions:			
1. Punctate Basophila.	3	8	5
2. Spurious Wounds of Burns.	3	8	5
3. Germ warfare.	3	8	5
4. Fetus Hemoglobin.	3	8	5
5. Seminoma.	3	8	5
6. Botulism.	3	8	5
7. Negative Autopsy	3	8	5
8. Chromatography.	3	8	5
III. Reasoning Out:			
1. Stature from Skeletal remains.	5	10	5
2. Conditions that replace putrefaction.	5	10	5
3. Difficulties in diagnosis of Death from Hanging.	5	10	5
4. Time since injury of skull fractures.	5	10	5
IV. Very Short Answers:			
1. Genetic Engineering.	1	4	2
2. Ghost well.	1	4	2
3. Wound Healing Process.	1	4	2
4. Haptoglobulin .	1	4	2
5. Carotid artery thrombosis.	1	4	2
6. Secretors.	1	4	2
7. Leukemia.	1	4	2
8. Red cell enzyme.	1	4	2
9. Atherosclerosis.	1	4	2
10. Carcinogen.	1	4	2

(LC 153)

APRIL 2013

Sub. Code: 2048

M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE
FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND FORENSIC
BIOCHEMISTRY
Q.P. Code : 202048

Time: Three Hours

Maximum: 100 marks

I. Essay: **(2X10=20)**

- 1) Describe substances resembling blood stains and discuss in detail about collection of blood stains and various biochemical tests to find out and confirm it.
- 2) Describe in detail about assessing time since death using post-mortem changes.

II. Short Questions: **(8X5=40)**

- 1) Write about complications of MYOCARDIAL INFARCTION.
- 2) Write about SUDDEN DEATH.
- 3) Write medico legal importance of SEMINAL STAINS.
- 4) Write about HLA TYPING and its medico legal importance.
- 5) Describe medico legal importance of BRAIN STEM DEATH.
- 6) Write about peculiar effects of fire arm wounds.
- 7) Write about injuries produced by HEAT.
- 8) Discuss in detail about causes of death in HANGING and add a note about TRAUMATIC ASPHYXIA.

III. Reasoning Out: **(4X5=20)**

- 1) During wars fully jacketed bullet is used.
- 2) Fresh water drowning is more dangerous than sea water drowning.
- 3) Dead body found in closed burnt room having head injury.
- 4) Head rest in a four wheeler is not for resting head.

IV. Very Short Answers: **(10X2=20)**

- 1) Types of skull bone fracture.
- 2) Medico legal importance of LACERATION.
- 3) CASPER'S dictum.
- 4) Instantaneous rigor.
- 5) Souvenir bullet.
- 6) Black eye.
- 7) SIX PENNY bruises.
- 8) Importance of forensic ENTOMOLOGY.
- 9) Punch drunk syndrome.
- 10) LOVE BITES.

[LE 153]

APRIL 2014

Sub. Code: 2048

M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE
FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY
Q.P. Code :202048

Time : Three Hours

Maximum : 100 marks

I. Essay:

(2X10=20)

1. Write in detail about pathophysiology and chemical reactions taking place in adipocere formation.
2. Classify Immunoglobulins. Write about the structure and applications of Immunoglobulins - G.

II. Short Questions:

(8X5=40)

1. Write about histochemical changes in WOUND HEALING.
2. Write in detail about gross and histological features of ELECTROCUTION.
3. Write about EWINGS postulates and about trauma and tumour.
4. Discuss about Anaphylactic death.
5. Describe medico legal importance of AIDS.
6. Define STAB injury, classify them and write about its complications and medico legal significance.
7. Describe injuries sustained by a car driver in TAIL GATING.
8. Role of Microbes in Putrefaction.

II. Reasoning Out:

(4X5=20)

1. Depressed fracture of skull is called as FRACTURE A LA SIGNATURE.
2. Differentiating epidermal and dermoepidermal burns in dead is difficult.
3. Dried salivary stain an indicator of ante mortem hanging.
4. Rifled fire arm exit wound is bigger than entry wound.

IV. Very Short Questions:

(10X2=20)

1. Medico legal importance of blood stains.
2. POND fracture.
3. Shock Lung.
4. Interferons.
5. FABRICATED INJURY.
6. SLE antibiotics.
7. Factors causing death in BOMB BLAST.
8. BANSOLA.
9. PRECIPITIN test.
10. Hyper Gamma Globulinaemia.

[LG 153]

APRIL 2015

Sub. Code: 2048

M.D. DEGREE EXAMINATION

BRANCH XIV – FORENSIC MEDICINE

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY
AND FORENSIC BIOCHEMISTRY**

Q.P. Code : 202048

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essay:

(2 x 10 = 20)

1. Describe the pathology of wound healing. Discuss in detail the causes of death from wounds.
2. Discuss the value of chemical analysis of cerebrospinal fluid in ascertaining the time since death.

II. Short Questions:

(8 x 5 = 40)

1. Pathophysiology of oedema.
2. Demonstration of aembolism in dead.
3. Guidelines to certify homicide by heart attack.
4. Pathology of asphyxia.
5. Excited delirium.
6. Crush syndrome.
7. Herniation contusion of brain.
8. Gangrene and necrosis.

III. Reasoning Out:

(4 x 5 = 20)

1. Mental elements in culpable homicide.
2. Lightning while in an automobile/using telephone/ipod music system.
3. Gaping of the wound depends on its location.
4. Death is a process and not an event.

IV. Very Short Questions:

(10 x 2 = 20)

1. Apoplexy.
2. Wolf parkinsons white syndrome.
3. Environmental asphyxia.
4. Polyarteritis nodosa.
5. Coarctation of aorta.
6. Hyaline membrane disease.
7. Vitreous humour.
8. Post exercise peril.
9. Sago spleen.
10. Spurious wounds of burns.

[LI 153]

APRIL 2016

Sub. Code: 2048

**M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE**

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY**

Q.P. Code :202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 10 = 20)

1. Describe the types, causes and pathophysiology of shock.
2. Classify the various types of Embolism and discuss the techniques for demonstration of Fat embolism.

II. Short Questions:

(8 x 5 = 40)

1. Tests for blood stain.
2. Hydrostatic test.
3. Endomologie of cadaver.
4. Chromatography.
5. Vagal inhibition.
6. Acid phosphatase test.
7. Mycoplasma pneumonia.
8. Drug idio syncrasy.

III. Reasoning Out:

(4 x 5 = 20)

1. The hydrostatic test is not of much value.
2. Fresh water drowning is more dangerous than sea water drowning.
3. Sub dural haemorrhage may be mistaken for schizophrenia in young patient.
4. Maceration is a process of Aseptic Autolysis.

IV. Very Short Questions:

(10 x 2 = 20)

1. Circle of Willis.
2. Anaphylaxis.
3. Carcinogens.
4. Berry aneurysm.
5. Punctuate basophilia.
6. Virtual autopsy.
7. Chemical test for semen.
8. Malignant hyperthermia.
9. Criminal abortion.
10. Curling's ulcer.

[LJ 153]

OCTOBER 2016

Sub. Code: 2048

**M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE**

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY**

Q.P. Code :202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 10 = 20)

1. State briefly the composition of human semen and describe in detail the morphology of normal human spermatozoa. Discuss the various tests done for the detection of seminal stains.
2. Mention the common organisms causing wound infection. How do you investigate a case of death due to sepsis?

II. Short Questions:

(8 x 5 = 40)

1. Causes of pulmonary air embolism.
2. Endotoxic shock.
3. Coma.
4. Microscopic changes in myocardial infarction.
5. Anaphylactic deaths.
6. Time since injury in skull fractures.
7. Concussion brain.
8. Air blast.

III. Reasoning Out:

(4 x 5 = 20)

1. Abortion induced after 14-18 weeks attracts enhanced punishment.
2. In male victims of hanging, penis may be found turgid and erect.
3. Condition and type of issue modify size and shape of contusion.
4. Trauma can cause myocardial infarction.

IV. Very Short Questions:

(10 x 2 = 20)

1. Molecular death.
2. Café cormary.
3. Endogenous burns.
4. Ageing of bruises
5. Acute radiation syndrome.
6. Donation of cornea.
7. Valvular disease of heart.
8. Rh incompatibility
9. Post traumatic embolism.
10. Secretors.

[LK 153]

MAY 2017

Sub. Code: 2048

**M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE**

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY**

Q.P. Code :202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 10 = 20)

1. Define and classify Necrosis. Describe in detail about Pathophysiology and Medico legal Importance of Necrosis. Add a note on Necrosis of the Brain.
2. Describe the DNS organisation and its replication. Discuss the methods on collection and dispatch on samples for DNA finger printing.

II. Short Questions:

(8 x 5 = 40)

1. Horizontal gaze Nystagnous.
2. Hyaline membrane diseases.
3. Hipprs.
4. Kennedy phenomenon.
5. Minor's cramp.
6. Myocardial siderosis.
7. Phalloides syndrome.
8. Sheehan's Haemorrhage.

III. Reasoning Out:

(4 x 5 = 20)

1. Periosted Haematomas in child abuse.
2. Justifiable abortion.
3. Role on chromatography in focus media.
4. Dissaminated Intravascular coagulation.

IV. Very Short Questions:

(10 x 2 = 20)

1. Spark Burns.
2. Pseudocide.
3. Sudden unexpected nocturnal death syndrome.
4. Zenker's degeneration.
5. Wemicke's encephalopathy.
6. Widow maker.
7. Hospital Hooper syndrome.
8. Ichthyo Foxicosis.
9. Forensic Knot analysis.
10. Trucking.

[LL 153]

OCTOBER 2017

Sub. Code: 2048

**M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE**

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY**

Q.P. Code :202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 10 = 20)

1. Discuss in detail about the types pathogenesis, complications and medico legal issues on Emphysema.
2. Discuss in detail about the application of Radiology in Forensic Medicine.

II. Short Questions:

(8 x 5 = 40)

1. Vital reactions.
2. Brain stem death.
3. Benzidine test.
4. Food poisoning.
5. Seminoma.
6. Extradural haemorrhage.
7. Endotoxic shock.
8. Criminal abortion.

III. Reasoning Out:

(4 x 5 = 20)

1. Froth in drowning.
2. The respired lung may sink during hydrostatic test.
3. Ligature strangulation resembling hanging.
4. Self inflicted wounds are easily detectable.

IV. Very Short Questions:

(10 x 2 = 20)

1. Phagocytosis.
2. Cerebral oedema.
3. Secondary impact injuries.
4. Female feticide.
5. Acid phosphatase test.
6. White cell antigen.
7. Atherosclerosis.
8. Septicaemia.
9. Traumatic asphyxia.
10. Black eye.

M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE
PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY
Q.P. Code :202048

Time : Three Hours

Maximum : 100 Marks

I. Essay: **(2 x 15 = 30)**

1. Discuss the various types of embolism and the techniques for demonstration of fat embolism and air embolism.
2. Classify Asphyxial forms of death. Describe the postmortem findings in a case of death due to hanging.

II. Short notes: **(10 x 5 = 50)**

1. Shock.
2. Implied consent.
3. Florence test.
4. Precipitin test for blood.
5. RFLP method.
6. IGM.
7. Negative autopsy.
8. The Transplantation of Human Organs Act.
9. Novus Actus interveniens.
10. Gas chromatography.

III. Reasoning Out: **(4 x 5 = 20)**

1. Positive Reaction of florence test is not a definite proof of seminal fluid.
2. Proof of semen in the absence of sperm.
3. Distinguishing between an antemortem contusion and area of Livor mortis during autopsy is not possible in decomposed bodies especially in the scalp.
4. A lady of 50 years old cannot be charged for procuring criminal abortion

M.D. DEGREE EXAMINATION
BRANCH XIV – FORENSIC MEDICINE
PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY

Q.P. Code: 202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 15 = 30)

1. Classify mechanical injuries. Write down the differences between homicidal and accidental wounds and ante mortem and post mortem wounds. Write in detail about injuries sustained by pedestrians.
2. Write about role of immunology in forensic practice.

II. Short notes:

(10 x 5 = 50)

1. Role of body fluids in detecting crime scene.
2. Scalds.
3. Bomb blast injuries.
4. Suffocation.
5. Laceration.
6. Suicidal injuries.
7. Post mortem artefacts.
8. Exhumation.
9. Delayed deaths.
10. Custodial death.

III. Reasoning Out:

(4 x 5 = 20)

1. As a rule hyoid bone fracture do not occur in other means other than strangulation.
2. Floatation time misleads investigation in drowning.
3. Acute starvation death is difficult to prove.
4. Autopsy is not always conclusive.

[LQ 153]

**AUGUST 2020
(MAY 2020 SESSION)**

Sub. Code: 2048

M.D. DEGREE EXAMINATION

BRANCH XIV – FORENSIC MEDICINE

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY**

Q.P. Code: 202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 15 = 30)

1. Discuss the substance that resembles blood stain and discuss in detail about collection of blood stain and various biochemical tests to confirm.
2. Describe the etiopathology of intra cranial haemorrhages. Describe the anatomy of circle of Willis.

II. Short notes:

(10 x 5 = 50)

1. Discuss wound healing and its medico legal importance.
2. Explain the mechanism of vaso-vagal inhibition.
3. Adult respiratory distress syndrome.
4. Recombinant DNA technology.
5. Write a note on erectile dysfunction and its medico legal issues.
6. Use of immunological tests in forensic practice.
7. Application of precipitin test in medico-legal investigations.
8. Bioterrorism as future medico – legal problem.
9. Discuss the pathophysiology of fracture of bone and its healing process.
10. Write about etiology of pancreatitis and its post-mortem findings.

III. Reasoning Out:

(4 x 5 = 20)

1. Why vitreous fluid is ideal for alcohol estimation?
2. Head rest in four wheeler is not resting head?
3. Virtual autopsy or traditional autopsy which will endure?
4. If a person lying down on the ground is stabbed on the sternum with sufficient force will there be any sort of trauma fracture on the spine?

[MD 0721]

**JULY 2021
(MAY 2021 SESSION)**

Sub. Code: 2048

M.D. DEGREE EXAMINATION

BRANCH XIV – FORENSIC MEDICINE

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY**

Q.P. Code: 202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 15 = 30)

1. Describe the neural control of cardiac output. Elaborate upon the hemodynamic changes in mitral valve stenosis.
2. Enumerate the metabolic changes in death due to starvation. Discuss about the various legal issues in hunger strike.

II. Short notes:

(10 x 5 = 50)

1. Histopathological findings in tuberculosis.
2. Basophilic stippling.
3. Differentiate between exotoxin and endotoxin.
4. Influence of alcohol in kreb's cycle.
5. Sex chromatin.
6. Plasma proteins.
7. Histochemical markers in estimation of age of wounds.
8. Clotting mechanism.
9. Gangrene.
10. ACE inhibitor drugs and their adverse effects.

III. Reasoning Out:

(4 x 5 = 20)

1. Happy hypoxemia in COVID – 19.
2. Idiosyncratic reactions are genetically determined.
3. Coadministration of rifampicin can cause failure of oral contraceptive pills.
4. Fluidity of blood in dead bodies is not due to decomposition.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 0522]

MAY 2022

Sub. Code: 2048

M.D. DEGREE EXAMINATION

BRANCH XIV – FORENSIC MEDICINE

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY**

Q.P. Code: 202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 15 = 30)

1. Define Thanatology. Discuss in detail about thanato chemistry and its application in estimating time since death.
2. Discuss the advantages and disadvantages of autopsy done by a board of doctors. What measures do you suggest for improvement of the system.

II. Short notes:

(10 x 5 = 50)

1. What is chronic traumatic encephalopathy? Discuss the gross features of CTE.
2. Rhin layer chromatography.
3. Forensic photography.
4. Write a note on HLA and its application in organ transplantation.
5. Spectroscopic examination.
6. Cerebral edema.
7. Write a note on age of fractures.
8. Autopsy findings in aviation injuries.
9. Role of immunological assays in poison detection.
10. Acroreaction.

III. Reasoning Out:

(4 x 5 = 20)

1. Medical Indemnity Insurance - necessary.
2. Fluid blood in right heart.
3. Virginity after death.
4. Heat changes hair colour.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 0723]

**JULY 2023
(MAY 2023 EXAM SESSION)**

Sub. Code: 2048

M.D. DEGREE EXAMINATION

BRANCH XIV – FORENSIC MEDICINE

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY**

Q.P. Code: 202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 15 = 30)

1. Discuss Anatomy of Orbit and its contents. Write a note on its Medicolegal Significance.
2. Define Shock. Discuss in detail about its types, stages and post-mortem appearance.

II. Short notes:

(10 x 5 = 50)

1. Pathophysiology of Drowning.
2. Deep vein thrombosis.
3. Berry Aneurysm and its medicolegal importance.
4. Locard's principle of Exchange.
5. Medicolegal aspects of Blood grouping.
6. Adler's Test.
7. Joule Burns and its histopathological picture.
8. Airbag injuries.
9. Polymerase chain reaction.
10. Fat soluble vitamins deficiency.

III. Reasoning Out:

(4 x 5 = 20)

1. Negative autopsy a synonym of obscure autopsy.
2. Acid burns always produce coagulative necrosis.
3. Lichtenberg flower appearance produced by electrical burns.
4. Acid and alkaline rigor.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 1223]

**DECEMBER 2023
(OCTOBER 2023 EXAM SESSION)**

Sub. Code: 2048

M.D. DEGREE EXAMINATION

BRANCH XIV – FORENSIC MEDICINE

**PAPER II – FORENSIC PATHOLOGY, FORENSIC IMMUNOLOGY AND
FORENSIC BIOCHEMISTRY**

Q.P. Code: 202048

Time : Three Hours

Maximum : 100 Marks

I. Essay:

(2 x 15 = 30)

1. Discuss various methods of dissection of heart along with its advantages and disadvantages. Add a note on blood supply of Heart.
2. Describe Hymen and its types, Autopsy approach in a case of Rape and Murder.

II. Short notes:

(10 x 5 = 50)

1. Causes of death in a case of hanging.
2. Gordons classification of death.
3. Anatomy of scalp and its blood supply.
4. Amniotic fluid embolism and its post-mortem finding.
5. Type I Hypersensitivity.
6. Takayama crystal test.
7. Estimation of age of burns.
8. Railway spine.
9. Abortifacient drugs.
10. Isolated IgA deficiency.

III. Reasoning Out:

(4 x 5 = 20)

1. Necrosis and Apoptosis.
2. Reflex vagal inhibition –a misnomer.
3. Father with O blood group and mother with B blood group can never have baby with AB blood group.
4. Metallization – a definite sign of electrical burns.
