

RAN-2206000103040001
T.Y. MBBS (Part I) Examination December - 2025
Forensic Medicine & Toxicology (New Course)

[Time: 3 Hours]

[Total Marks: 100]

Seat No.

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Instructions:

1. Fill up strictly the following details on your answer book
 - a. Name of the Examination : **BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (THIRD PART-1)**
 - b. Name of the Subject : **FORENSIC MEDICINE AND TOXICOLOGY - LEVEL 4**
 - c. Subject Code No : **2206000103040001**
2. Draw table or diagram wherever it is needed.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.
5. There are two sections in this question paper. Answer both the sections in separate answer sheets.
6. Write answers according to the question only.
Writing anything which is not asked won't be counted for Marks

Student's Signature

Section – I

Q. 1 Define thanatology. Enumerate various postmortem changes after death. How will you estimate the time since death during autopsy? (1+3+6) **1x10=10 marks**

Q. 2 Applied Questions. (Write any 2 out of 3) **2x6=12 marks**

1. A 22 Year old married female was missing from today morning after 8:00 am. Her dead body recovered from a nearby lake at around 3:00 pm. Police sent her body for postmortem examination. Her clothes are wet & copious froth seen in mouth and nostrils.

- a. Who will conduct the inquest in this case? (1)
- b. What is the probable cause of death? (1)
- c. What is the mechanism of death in this case? (2)
- d. What are the lung findings in such cases? (2)

2. An old man was crossing the road and suddenly he got hit by a car from his left side. His head fell on the car and then he fell on the ground. Considering this scenario, give answers to following question.

a. What are primary and secondary impact injuries? (2)

b. Where will these injuries be present in this case? (2)

c. What is lucid interval? (1)

d. Enumerate different types of intra cranial hemorrhages. (1)

3. A 20 year old unmarried female came for MTP with history of 4 months of amenorrhea. Give following answer.

a. Enumerate the various probable signs of pregnancy? (2)

b. Who can perform MTP in this case? (1)

c. What are other indications for MTP? (3)

Q. 3 Write Short notes on (Write any 4 out of 5)

4x4=16 marks

1. Summons

2. Abrasion

3. Superimposition Technique

4. Medico legal aspects of blood.

5. Postmortem findings in case of flame burns.

Q. 4 Give answer in two or three sentences. (Write any 6 out of 7)

6x2=12 marks

1. What is Atavism?

2. Enumerate various evisceration techniques for autopsy

3. What is indecent assault?

4. Draw a labelled diagram of rifled firearm cartridge.

5. What is frigidity?

6. Rule of Haase

7. What is Amussat's sign?

Section – II

Q. 1 Classify poisons according to their mode of actions. Write in detail about clinical features, fatal dose, fatal period, management and postmortem findings of Sulphuric Acid poisoning. (4+6)

1x10=10 marks

Q. 2 Applied questions. (Write any 2 out of 3)

2x6=12 marks

1. A 64 year old female consulted a surgeon for abdominal pain and fever on fifth day of cholecystectomy. Surgeon reassures her not to worry and advises her to follow up after 3 days. Next day she died, and her body was sent to autopsy for allegation of negligence against doctor. Autopsy surgeon found cotton swabs from abdominal cavity and features of peritonitis. Answer the following questions:

- a) What doctrine applies here? (1)
- b) Write about the difference between civil and criminal negligence. (3)
- c) Enumerate the punishments given to the doctor in this case. (2)

2. A 70 year old man wants to make a will. A doctor is called upon to check compos mentis. During examination he says president of USA is his friend and talk daily with him on phone.

- a) What is testamentary capacity? (2)
- b) What is status of will in this case? (1)
- c) Enumerate civil responsibility in this type of case. (3)

3. A 28 year old male brought in casualty with complaint of blurring of vision, severe cramp like abdominal pain with history of consuming country made liquor from local shop.

- a) What is your probable diagnosis? (1)
- b) Enumerate signs and symptoms he may develop? (2)
- c) How will you manage this case? (3)

Q. 3 Short notes (Write any 4 out of 5)

4x4=16 marks

1. Consent
2. Hallucination
3. Write differences between venomous and non-venomous snakes.
4. Explain about various methods for removal of unabsorbed poisons
5. Aluminum Phosphide poisoning.

Q. 4 Answer in two or three sentences (Write any 6 out of 7)

6x2=12 marks

1. What is Vicarious liability?
2. What is Oniomania?
3. Enumerate various cannabis preparations
4. What is basophilic stippling?
5. What is the composition of sewer gas?
6. Ecstasy
7. What is hippus?

RAN-2406000103020601
Third M.B.B.S. (Part - I) Examination November - 2025
Community Medicine Paper- I- Set -2
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

Student's Signature
Q. 1 MCQs
20

- A cohort study differs from a case-control study in that:
 - Subjects are enrolled or categorized on the basis of their exposure status in a cohort study but not in a case-control study
 - Subjects are asked about their exposure status in a cohort study but not in a case-control study
 - Cohort studies require many years to conduct, but case-control studies do not
 - Cohort studies are conducted to investigate chronic diseases, case-control studies are used for infectious diseases
- Father of Indian Surgery is:
 - Dhanvantari
 - Charaka
 - Susruta
 - Atreya
- Human living standards can be compared in different countries by:
 - HDI
 - PQLI
 - HPI
 - DALY
- Screening is the most commonly used epidemiological tool in school health services. Which level of prevention does it refer to?
 - Primary
 - Secondary
 - Tertiary
 - Primary and secondary
- Key population tested with X-pert MTB/RIF..
 - Children with presumptive TB
 - Presumptive MDR TB
 - Presumptive extra pulmonary TB
 - ALL
- Global warming true is:
 - CO₂ is a major greenhouse gas
 - Stratosphere ozone layer is harmful
 - CFC increases stratosphere ozone layer
 - Kyoto protocol called for 20% reduction in greenhouse emissions
- Under NPCB in India, cutoff for blindness is defined as having a vision of:
 - < 3/60 in worse eye
 - < 6/60 in better eye
 - < 3/60 in better eye
 - < 6/60 in worse eye

8. Incineration is:
 - a) High temperature reduction process
 - b) Low temperature reduction process
 - c) High temperature oxidation process
 - d) Low temperature oxidation process
9. Which of the following trace element cannot be Completely supplemented by diet during pregnancy:
 - a) Fe
 - b) Ca⁺⁺
 - c) Zn
 - d) Mn
10. The optimum calories to be provided by proteins should be:
 - a) 5-10%
 - b) 10-15%
 - c) 15-20%
 - d) 20-30%
11. Softening is recommended when hardness of water is more than:
 - a) 50 mg/litre
 - b) 75 mg/litre
 - c) 100 mg/litre
 - d) 150 mg/litre
12. The most common side effect of IUD insertion, which requires its removal is:
 - a) Bleeding
 - b) Pain
 - c) Pelvic infection
 - d) Ectopic pregnancy
13. According to Registration of Births and Deaths Act 1969, the birth and death are to be registered, respectively in:
 - a) 14 days and 7 days
 - b) 7 days and 14 days
 - c) 14 days and 21 days
 - d) 21 days and 21 day
14. Definition of health given by WHO does not include which of the following dimensions:
 - a) Social
 - b) Physical
 - c) Mental
 - d) Emotional
15. Most important factor in Sewage treatment:
 - a) Bacterial count
 - b) Solids
 - c) Nitrite and phosphorus
 - d) Water content
16. In India, a tubercular mother is advised for all except:
 - a) Give baby BCG
 - b) ATT to mother
 - c) Withhold Breast feeding
 - d) None of these
17. Which of the following diseases is not under surveillance in Integrated Disease Surveillance Project (P-FORM)?
 - a) Snake bite
 - b) Acute Respiratory Tract Infections
 - c) Tuberculosis
 - d) Leptospirosis
 - e) All of the above
18. The minimum recommended dose of "free" residual chlorine in water for routine chlorination (in mg/l) is:
 - a) 0.5 mg/l for a contact period of 1hr
 - b) 0.5 mg/l for a contact period of 1/2 hr
 - c) 1.0 mg/l for a contact period of 1hr
 - d) 1.0 mg/l for a contact period of 1/2 hr
19. Inertization deals with:
 - a) Mixing biomedical waste with cement and other substance before disposal
 - b) Incineration of biomedical waste with cement and other substance before disposal
 - c) Dumping of Biomedical waste in sanitary landfills
 - d) Screw feed technology to disinfect sharps
20. How many doses of monovalent meningococcal 'C' vaccine is given in Infants?
 - a) 1
 - b) 2
 - c) 3
 - d) 4

- Q. 2 Write Long answer question (1 out of 2) 10**
1. Describe the steps involved in an outbreak investigation and illustrate with a hypothetical example
 2. What is safe and wholesome water? Discuss methods for ensuring safe drinking water in a community.
- Q. 3 Write/ comment short answers (any 2 out of 3) 10**
1. Types of Screening
 2. Switching to Injectable Polio vaccine
 3. Carriers in Enteric fever
- Q. 4 Write answers/reasons in One or two lines 20**
1. Point source epidemic give two examples
 2. Explain $RR=1$, $RR < 1$ and $RR > 1$
 3. Human Development Index (HDI)
 4. List two objectives of IMNCI?
 5. Define Health
 6. India is in which phase of demographic cycles, explain!
 7. List two eligibility criteria to OCPs
 8. Red category in Triage in Earthquake
 9. Couple protection rate and NRR
 10. BCG is given only up to 1 year as per National Immunization Programme!
- Q. 5 Long answers questions (1 out of 2) 10**
1. Two most important indicators of Air pollution, Discuss Air pollution Control measures
 2. Classify epidemics and explain in brief "continuous exposure epidemic" with relevant diagram
- Q. 6 Write/ comment short answers (any 2 out of 3) 10**
1. Ethics and medical error
 2. Active Vs Passive surveillance
 3. Categories of Biomedical waste management
- Q. 7 Write short notes on the following (5 out of 6 each carries 4 marks) 20**
1. List four different vectors of medical importance and two disease caused by each
 2. Open Vial Policy in National Immunization Programme
 3. Side effects of Copper -T
 4. Long term effects of Radiation exposure
 5. Explain the importance of primary prevention in Measles
 6. What is overcrowding and two disease associated with it?


RAN-2406000103020602
3rd MBBS- Part-I, Examination November - 2025
Community Medicine Paper-II-Nov 2025- Set-1
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

Seat No.:

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Student's Signature

SET-1

20

Q.1. MCQ

- Iodine requirements during Lactation is:
 - 100 mcg per day
 - 150 mcg per day
 - 220 mcg per day
 - 290 mcg per day
- In which stage of the demographic cycle is India currently?
 - High stationary
 - Late expanding
 - Early stationary
 - Low stationary
- Economic benefits of any programme are compared with the costs incurred in:
 - Cost benefit analysis
 - Cost effective analysis
 - Cost accounting
 - Network analysis
- Which of the following are true regarding principles suggested for Mid-day meal programme, except?
 - Meal should be a supplement only not a substitute for home diet
 - Meal should provide 1/2 calories and 1/3 proteins
 - Meal cost should be low
 - Complicated cooking process must not be involved
- MMR should be expressed in terms of:
 - Per 100000 births
 - Per 1000 births
 - Per 1000 pregnancy
 - Per 100000 live births
- Pearl index is used to evaluate:
 - Family planning
 - Contraceptive acceptance
 - Population control
 - Contraceptive failures
- All of the following are included in methods based on behavioural sciences except:
 - Personal management
 - System analysis
 - Management by objectives
 - Communication
- Oral contraceptive cause all side effects except:
 - Monilial vaginitis
 - Pituitary adenoma
 - Ca uterus
 - None
- A temporary, provisional view held by people on a point of debate is:
 - Opinion
 - Practice
 - Attitude
 - Belief
- Energy requirement in late pregnancy for a moderate worker is
 - 2500 cal
 - 1400 cal
 - 1000 cal
 - 500 cal

11. Population covered by Anganwadi in tribal area is
 - a) 1000
 - b) 300-800
 - c) 400
 - d) 100
12. A physician, after examining a group of patients of a certain disease, classifies the condition of each one as 'Normal', 'Mild', 'Moderate' or 'Severe'. Which one of the following is the scale of measurement that is being adopted for classification of the disease condition?
 - a) Normal
 - b) Interval
 - c) Ratio
 - d) Ordinal
13. The events A and B are mutually exclusive, so
 - a) Prob (A or B) = Prob (A) + Prob (B)
 - b) Prob (A and B) = Prob (A) X Prob (B)
 - c) Prob A) = Prob (B)
 - d) Prob A) + Prob (B) = 1
14. Smoking is preventive for:
 - a) Lung cancer
 - b) Chronic bronchitis
 - c) Ulcerative colitis
 - d) CHD
15. Amino acid lesser in rice is:
 - a) Lysine
 - b) Methionine
 - c) Both
 - d) None
16. An adult pregnant female is termed anemic if her hemoglobin venous blood is:
 - a) Less than 11 g/dl
 - b) Less than 12 g/dl
 - c) Less than 13 g/dl
 - d) Less than 14 g/dl
17. Certificate for vaccination during international travel is required in case of:
 - a) Japanese Encephalitis
 - b) Yellow fever
 - c) Cholera
 - d) Yellow fever and Cholera
18. Keshan cardiomegaly occurs due to deficiency of
 - a) Selenium
 - b) Copper
 - c) Zinc
 - d) Iron
19. Method used for comparison of a new test with an available gold-standard test is
 - a) Regression analysis/Likelihood test
 - b) Correlation analysis/Bland and Altman test
 - c) Bland and Altman method
 - d) Kimono and Samleto technique
20. Nearly 3/4th of occupational cancers are:
 - a) Skin Cancer
 - b) Lung Cancer
 - c) Cancer Bladder
 - d) Leukemias

Q.2. Write Long answer question(1 out of 2)

10

1. Define maternal death. Write formula to calculate maternal mortality ratio. Describe causes of maternal death. Write various measures and government strategies to reduce maternal mortality in Gujarat. (1+1+4+4)
2. Enumerate four arboviral diseases. Write epidemiology of Dengue fever in detail. Describe the public health measures for prevention and control of Dengue fever (1+4+5)

- Q.3. Write/ comment short answers (any 2 out of 3) 10**
1. Describe diagnostic algorithm for pulmonary tuberculosis according to National Tuberculosis Elimination Programme
 2. Risk factors for Type 2 Diabetes
 3. Ergonomics
- Q.4. Write answers/reasons in One or two lines 20**
1. Supplementary action of protein
 2. Four side effects of Oral Contraceptive pills
 3. List two variety of Asbestos
 4. Roshansingh Sodhi stays with his wife Roshan and his only son Golgi puttar in Gokuldharm society of Goregaon. What is the type of this family?
 5. Write treatment of Paucibacillary Leprosy.
 6. Two measure to prevent Bagassosis
 7. List Four food sources of Calcium
 8. What is modifiable risk factors, list two
 9. Explain Pulses are poor men's meat
 10. Cause and signs of Pellagra
- Q.5. Long answers questions (1 out of 2) 10**
1. List all Non communicable diseases in India and describe preventive measures for Cancers (2+8)
 2. Define primary health care. Describe the principles of primary health care with examples (2+8)
- Q.6 Write/ comment short answers (any 2 out of 3) 10**
1. High risk conditions in antenatal women
 2. Primordial prevention of Mental disorders
 3. What is fiduciary duty?
- Q.7. Write short notes on the following (5 out of 6 each carries 4 marks) 20**
1. Down's syndrome
 2. Epidemic Dropsy
 3. Food fortification
 4. ICDS
 5. Dietary recommendations for pregnant woman
 6. Engineering measures for prevention of occupational diseases