

The West Bengal University of Health Sciences
MBBS 3rd Professional Part-I Examination (New Regulation),
April 2024

Subject: Community Medicine
 Paper: I

Full Marks: 100
 Time: 3 hours

Attempt all questions. The figures in the margin indicate full marks.

1. a) One adult man has attended your hospital with complaints of fever, emaciation, abdominal swelling and darkening of skin. He had a history of travel to Bihar. What is the most probable diagnosis? How the disease can be treated? What are the preventive and control measures for the disease? 1+4+5+5

- b) ASHAs of a sub-centre in 'X' district reported an outbreak of fever with rash cases of under five children in the month of February 2024. HMIS data shows poor immunization coverage in this sub-centre for the year 2023 with lots of 'left out' and 'drop out' cases. What do you mean by an outbreak? What stands for 'left out' and 'drop out' cases? As an administrative officer of district 'X', how will you investigate this outbreak? 1+2+2+10

2. Write on the following:
 - a) What is 'smog'? The AQI of your city is falling within the range of 200-300 during the last 7 days in the month of March. What will be the health effects of the above situation? What measures can be adopted to tackle the situation? 2+4+4
 - b) What are the risk factors for development of breast cancer? How will you screen a suspected case of breast cancer? What is cancer registry? 4+4+2
 - c) Describe measures of central tendency with examples. Explain why median is a better measure of central tendency in a widely dispersed data. 8+2

3. Write short notes on the following:
 - a) Pillars of medical ethics.
 - b) Disaster cycle. 2 x 5

2. Explain the following statements:
 - a) Internship is an example of socialization.
 - b) Biomedical waste should be segregated at source.
 - c) Bias and confounding are not synonymous.
 - d) Human factor is more important than environmental factors in causing accident.
 - e) Sensitivity and specificity of a screening test are inversely related. 5 x 4

5. Choose the correct option for each of the following:
 - i) 'Monday chest tightness' is associated with: 10x1

a) Bagassosis	b) Byssinosis
c) Asbestosis	d) Silicosis

- ii) Kayakalp programme is directed for:
- a) Hospital hygiene
 - b) Hospital administration
 - c) Health promotion
 - d) Environmental sanitation
- iii) 6x6x6 strategy targets which disease?
- a) HIV
 - b) Hypertension
 - c) Anemia
 - d) Diabetes
- iv) Metallic body implants are disposed in:
- a) Red bag
 - b) Yellow bag
 - c) Blue bag
 - d) Black bag
- v) Horrock's apparatus estimates:
- a) Coliform count of water
 - b) Chlorine demand of water
 - c) Air pollution quality
 - d) Air velocity
- vi) All are true about measles infection except:
- a) Measles vaccine contains attenuated Edmonston strain on chick embryo cell using medium 199
 - b) For elimination of measles MCV2 coverage must be 95%
 - c) Period of infectivity is 5 days before rash to 4 days after rash
 - d) Rare complications like febrile convulsions, encephalitis and SSPE can be more serious and dangerous than common complications
- vii) Among Sexually transmitted infection/Reproductive tract infection(STI/RTI) treatment color coded kits, Kit 1(Gray) is for
- a) Vaginitis
 - b) Urethral discharge
 - c) Lower abdominal pain
 - d) Genital ulcer
- viii) Graph showing relation between two variables is:
- a) Scatter diagram
 - b) Frequency polygon
 - c) Pictogram
 - d) Pie diagram
- ix) Tendon reconstruction surgery in polio is which type of rehabilitation?
- a) Social
 - b) Medical
 - c) Vocational
 - d) Educational
- x) SDG related to health is
- a) Goal 2
 - b) Goal 3
 - c) Goal 5
 - d) Goal 6

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 Paper: II

Full Marks: 100
 Time: 3 hours

Attempt all questions. The figures in the margin indicate full marks.

1. a) a 2 year old male child presented to the immunization clinic. His weight is between -2SD and -3SD for his age. What measures will you take for his management under the ICDS scheme? Enumerate the beneficiaries under the scheme. Discuss the services provided under this scheme. 5+4+6
- b) a 25 year old mother with 2 children aged 5 years and 1 year has come to the OPD for family planning advices. Discuss different methods of contraception to the mother with merits and demerits. Enumerate the fertility indicators. What do you mean by NRR 1? 10+4+1
2. Write on the following:
 - a) Discuss the different types of occupational hazards with example. As a safety inspector on a visit to a factory, what measures will you suggest to the authorities for protection of the workers? 4+6
 - b) Define 'Dependency ratio. What is "Demographic burden" and "Demographic Bonus"? Discuss the measures available to prevent declining sex ratio. 2+4+4
 - c) Prevalence of anemia among pregnant women is high compared to state and national average in the block of your posting. On enquiry, the ANMs reported that the pregnant women are unwilling to consume IFA tablets given to them during antenatal check ups. As BMOH of the block, design an implementation plan to address the issue. 10
3. Write short notes on the following: 2 x 5
 - a) Birth preparedness and complication readiness.
 - b) Cost effective and cost benefit analysis in health care.
4. Explain the following statements: 5 x 4
 - c) Equitable distribution of health services is an important principle of primary health care.
 - d) Customs do not always have negative effect on health.
 - e) Health education is not a propaganda.
 - f) Nothing on earth is more international than disease.
 - g) Dietary fibre has protective role in individual diet.

5. Choose the correct option for each of the following:

- i) Swathya Sathi scheme is an example of:
 a) Social assistance
 b) Social Marketing
 c) Social insurance
 d) Social participation
- ii) The headquarter of UNICEF is in:
 a) New York
 b) Geneva
 c) Paris
 d) Rome
- iii) All of the following are steps of planning cycle except:
 a) Situation analysis
 b) Surveillance
 c) Monitoring
 d) Establishment of goals and objectives
- iv) The toxin causing epidemic dropsy is:
 a) BOAA
 b) Sanguinarine
 c) Aflatoxin
 d) Pyrrolizidine
- v) The number of live births per 1000 women in the reproductive age group in a year refers to:
 a) Total fertility rate
 b) Gross reproduction rate
 c) Net reproduction rate
 d) General fertility rate
- vi) Which of the following is an example of permanent social group?
 a) Band
 b) Crowd
 c) Mob
 d) Herd
- vii) GALPAC is a model used for:
 a) Counseling
 b) Medico-legal documentation
 c) Doctor patient communication
 d) Unethical conduct
- viii) Commonest cause of neonatal mortality in India is:
 a) Diarrheal diseases
 b) Birth injuries
 c) Low birth weight
 d) Congenital anomalies
- ix) Giving access to the suitable environment for ready expression of genes is called:
 a) Eugenics
 b) Population genetics
 c) Euthenics
 d) Human genome project
- x) The best method of teaching rural population about ORS is:
 a) Demonstration
 b) Role play
 c) Lecture
 d) Flash card

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MBBS 3rd Professional Part-I Examination (New Regulation)
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Subject: Ophthalmology

Full Marks: 100

Time: 3 hours

Attempt all questions. The figures in the margin indicate full marks.

1. a) A 40 year old farmer complains of redness, watering and dimness of vision in his right eye for last 3 days. He had a history of injury in his right eye with the branch of a tree 4 day ago. What is your provisional diagnosis? What will be the investigations and management in this case? 2+6+7

- b) A 60 year old gentleman with end stage kidney disease undergoing regular hemodialysis, presented with sudden onset painless loss of vision in right eye. He also noticed numerous floaters just at the onset of sudden dimness of vision in right eye. He has history of poorly controlled diabetes mellitus for past 20 years. On fundus evaluation, there is no fundal red glow in right eye, but left eye shows characteristic retinal changes. 1+1+5+5+3
 - i) What are your provisional diagnoses in right eye and left eye respectively?
 - ii) Describe the classification of the characteristic retinal findings in the left eye.
 - iii) How will you treat and visually rehabilitate both eyes of this patient?
 - iv) Enumerate the different ways diabetes mellitus can affect human eyes except posterior segment.

2. a) Write about VISION 2020: RIGHT TO SIGHT INDIA: Strategic plan 2021-2026, its objectives and its implementation at various level. 2+4+4

- b) Describe the indications, contraindications and complications of evisceration of eyeball. 4+4+2

- c) Describe the structures of upper eyelid with a labeled diagram. 5+5

3. Write short notes on the following : 2 x 5
 - a) How will you counsel a patient of pathological myopia?
 - b) Recurrent pterygium.

4. Explain the following statements: 5 x 4
 - a) Keratic precipitates are deposited in the lower 1/3rd of cornea.
 - b) Viscoelastic substances are essential in cataract surgery.
 - c) Cycloplegics are required for paediatric refraction.
 - d) Sterile hypopyon seen in bacterial corneal ulcers.
 - e) Uncorrected high degrees of ametropia in preschool age can lead to permanent subnormal vision throughout one's life.

5. Choose the correct option for each of the following :

- i) Amsler grid test is for:
 a) Corneal thickness
 b) Macular function
 c) Visual field charting
 d) Calculation of squint angle
- ii) USG B-Scan can detect:
 a) Retinal detachment
 b) Optic neuritis
 c) Corneal ulcer
 d) Chalazion
- iii) The most common risk factor for CRVO is:
 a) Diabetes
 b) Hypertension
 c) Dyslipidaemia
 d) Glaucoma
- iv) Atropine eye drop is contraindicated in:
 a) Acute iridocyclitis
 b) Acute congestive glaucoma
 c) Malignant glaucoma
 d) Corneal ulcer
- v) Irrespective of the etiology of a corneal ulcer, the drug always indicated is:
 a) Corticosteroids
 b) Cycloplegics
 c) Antibiotics
 d) Antifungals
- vi) Proptosis is present in the following condition except:
 a) Horner's syndrome
 b) Orbital cellulitis
 c) Thyroid ophthalmopathy
 d) Cavernous sinus thrombosis
- vii) In retinal detachment fluid accumulates between:
 a) Outer plexiform layer and inner nuclear layer.
 b) Neurosensory retina and layer of retinal pigment epithelium
 c) Nerve fiber layer and rest of retina
 d) Retinal pigment epithelium and Bruch's membrane
- viii) Munson's sign is seen in:
 a) Keratoconus
 b) Fungal keratitis
 c) Chemical injury
 d) Viral keratitis
- ix) Band shaped keratopathy is commonly caused by deposition of:
 a) Magnesium salt
 b) Calcium salt
 c) Ferrous salt
 d) Copper salt
- x) Thinnest wall of orbit is:
 a) Medial wall
 b) Lateral wall
 c) Roof
 d) Floor

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Subject: Oto-Rhino-Laryngology (ENT)

Full Marks: 100

Time: 3 hours

Attempt all questions. The figures in the margin indicate full marks.

1. a) A 20 year old female patient presented with progressive bilateral hearing loss. Rinne test was negative in both ears. Tympanic membranes were normal. 2+4+4+5
 - i) What is the probable diagnosis?
 - ii) What is Schwartz sign?
 - iii) What audiological tests to be done to confirm the diagnosis?
 - iv) Describe the surgical treatment.

- b) A 15 year old boy attended the emergency with profuse spontaneous epistaxis. He gives the history of repeated similar episodes in the last one year. 1+2+3+4+5
 - i) What is the most probable diagnosis?
 - ii) What are the differential diagnosis of this case?
 - iii) What are the other symptoms which the patient may present with?
 - iv) What may be the clinical and radiological findings of the case?
 - v) How will you treat the patient?

2. a) Enumerate the ENT causes of giddiness. Describe Dix-Hallpike test. Describe the treatment of Benign paroxysmal positional vertigo (BPPV). 3+3+4
- b) Which investigations would you suggest for a 50 year old woman complaining of progressive dysphagia initially to solids but now having difficulty in swallowing liquids also? Name the investigations along with the diagnostic finding for each investigation to diagnose the underlying disease. 5+5
- c) Enumerate the indications of Functional Endoscopic Sinus Surgery (FESS). Describe the steps of FESS. Enumerate the complications of the FESS. 2+5+3

3. Write short notes on the following: 2 x 5
 - a) Significance of written, informed consent before a major surgery.
 - b) Cholesteatoma.

4. Explain the following statements: 5 x 4
 - a) Otoscopic examination may be normal in a patient complaining earache.
 - b) Cancer involving left side of the lung may present to the otolaryngologist with complaint of hoarseness.
 - c) Unilateral nasal septal deviation may cause bilateral nasal obstruction.
 - d) Ears should always be clinically assessed in a child suffering from enlarged adenoids.
 - e) Foreign bodies in the airway presents either as an emergency or later without symptoms of airway obstruction.

5. Choose the correct option for each of the following:

- i) A 25 year old man suffered head injury in a road traffic accident. Even after controlling the epistaxis, the patient continues to have watery discharge from the nose. Glucose level of the discharge is 65mg/dl. Which structure is most likely to have been injured?
 a) Middle turbinate b) Orbital floor c) Optic nerve d) Cribriform plate
- ii) Which of the laryngeal carcinomas have the best prognosis?
 a) Supraglottic b) Glottic c) Subglottic d) Transglottic
- iii) Shortest and narrowest segment of facial canal is
 a) Labyrinthine b) Tympanic c) Mastoid d) Meatal
- iv) The commonest complication of acute mastoiditis is:
 a) Facial paresis b) Labyrinthitis
 c) Meningitis d) Subperiosteal abscess
- v) Epley's maneuver is for:
 a) Diagnosis of benign paroxysmal positional vertigo
 b) Treatment of benign paroxysmal positional vertigo
 c) Diagnosis of Meniere's disease d) Treatment of Meniere's disease
- vi) A 50 year old lady complains of pain in the throat which is aggravated on swallowing. The pain radiates to the ear and posterior part of the tongue. The likely diagnosis is:
 a) Sluder's neuralgia b) Temporomandibular joint arthritis
 c) Glossopharyngeal neuralgia d) Trigeminal neuralgia
- vii) Endolymph is formed in:
 a) Utricle b) Endolymphatic sac c) Scala media d) Scala tympani
- viii) A middle aged poorly controlled diabetic man attended the hospital with the complaints of nasal discharge and facial numbness. Anterior rhinoscopy shows crusting and palate shows black discoloration suggestive of necrosis. Which of the following investigations can confirm the diagnosis?
 a) Nasal endoscopy b) Computed tomography
 c) Magnetic resonance imaging d) Tissue scraping from palate and KOH smear
- ix) Anaesthesia given for drainage of Retropharyngeal abscess is:
 a) General b) Local
 c) Intravenous d) None
- x) Posterior ethmoid air cells drain most commonly into
 a) Superior meatus b) Middle meatus
 c) Inferior meatus d) Fossa of Rosenmuller

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Subject: Forensic Medicine & Toxicology

Full Marks : 100

Time : 3 hours

Attempt all questions. The figures in the margin indicate full marks.

1. a) A 30 year old granary worker was brought to the emergency of a tertiary care hospital with a history of consuming five greyish-white tablets that are used to preserve grains, about one hour before. During the initial clinical assessment, a disagreeable garlicky odour is noted coming from his mouth. 2+3+4+4+2
 - i. Identify the most probable poison consumed by the granary worker in question.
 - ii. What bed side chemical tests do you prefer to do to confirm the clinical diagnosis?
 - iii. Describe the clinical features due to the ingestion of this poison.
 - iv. Briefly outline management of this patient.

What autopsy findings do you expect in a fatal case with the poison in question?
 - b) A 25 year old female married for last one year was brought to the casualty with injuries of thermal burns. The patient claimed that she had been deliberately tried to be killed by her husband using fire. The patient was conscious, well oriented and had superficial to deep burns over the body involving front of chest and abdomen, both upper limbs, anterior and posterior aspects of both the lower limbs and genitalia. After one hour of initial management, patient's condition worsened and she died on the same day despite rigorous resuscitation measures. (1+2)+(1+4)+(3+1)+3
 - i. Name the formula commonly used to calculate total surface area burnt. Calculate the total surface area burnt in this case.
 - ii. Name the formula commonly used for resuscitation by fluid management. Describe the management in brief.
 - iii. What is the medico-legal role of the doctor attending this case? Who will hold the inquest and under what section of IPC?
 - iv. What are the post-mortem findings expected in the given case?
2. a) Enumerate the different patterns of fingerprints in humans. What is a latent fingerprint? Give a brief description of methods of developing, lifting and archiving a latent fingerprint. 2+2+2+2+2
 - b) What is 'Thunderclap' headache? Mention the type of intracranial haemorrhage in which it is found. Write down a simple bed side test for its diagnosis. Write down the most common non-traumatic cause of this intracranial haemorrhage occurring in young subjects with a labelled diagram. Differentiate between coup and contrecoup injury. 1+1+1+(1+3)+3
 - c) A 22 year old married woman has been brought to emergency with dyspnoea and delirium. Clinical findings are cold clammy skin with overall paleness and feeble pulse (110/min). Her wearing apparels over lower part of body is found wet with blood. On enquiry, she had her abortion 4 hours back.

- i. What are the medico-legal duties to be followed by the attending doctor during treatment and in case of death?
- ii. What are the expected autopsy findings in this case? 4+3+3
- iii. What are the probable methods of criminal abortion used in this case? 2 x 5
3. Write short notes on the following: 5 x 4
- a) Five basic principles of Bioethics.
- b) The macroscopic and microscopic features of skin in a case of Joule burn.
4. Explain the following statements: 10 x 1
- a) Different methods are used to collect finger prints from fresh, decomposed and mummified dead bodies.
- b) Medical evidence itself does not establish the guilt or innocence of the accused.
- c) Rape is not a medical opinion.
- d) Flunitrazepam is commonly used in drug-facilitated sexual assaults.
- e) Some vegetable irritants can cause profound shock due to presence of super-antigen.
5. Choose the correct option for each of the following :
- i) The pelvis alone can give the degree of accuracy in sexing adults is:
 a) 98% b) 95% c) 90% d) 80%
- ii) A perversion, in which sexual gratification is associated with contact and sight of certain parts of the female body, or even clothing or other articles is known as:
 a) Exhibitionism b) Transvestism c) Voyeurism d) Fetishism
- iii) 'Red Velvety' appearance in stomach is seen in death due to:
 a) Acute mercury poisoning b) Acute lead poisoning
 c) Acute arsenic poisoning d) Acute phosphorous poisoning
- iv) Injury to the superficial epithelial layers of the skin of the neck produced by a ligature such as rope during hanging is a:
 a) Graze Abrasion b) Pressure Abrasion c) Imprint Abrasion d) Pseudo Bruise
- v) A doctor has performed an urgent surgery on an unconscious patient without consent to save his life as there is none available to give consent. Here the section of IPC protecting him against charge of negligence is:
 a) s.87 IPC b) s.90 IPC c) s.91 IPC d) s.92 IPC.
- vi) Softening of lower uterine segment during pregnancy is known as:
 a) Chadwick's sign b) Jacquemier's sign c) Hegar's sign d) Oslander's sign
- vii) Sparrow foot marks are associated with:
 a) Motor cyclist's fracture b) Under running or tail gating
 c) Steering wheel impact d) Wind screen impact
- viii) Hemodialysis is not useful in poisoning with:
 a) Methyl alcohol b) Barbiturates c) Ethylene glycol d) Copper sulphate
- ix) A man with fracture of right forearm was attended by a doctor who applied plaster cast to left forearm without attending the right forearm. In this type of professional negligence:
 a) Burden of proof lies with the patient b) Doctrine of common knowledge is applicable
 c) Contributory negligence may be a point of defence for the doctor
 d) Doctor can claim novus actus interveniens
- x) Marijuana or ganja is prepared from:
 a) Dried mature leaves of cannabis b) Flowering top of female cannabis plants
 c) Dried resin of cannabis plant d) Seedless flowers of cannabis