

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2008**

**Subject – Forensic Medicine & Toxicology**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A male person was found lying on a railway track with lacerated injury over back of head. Discuss how you can ascertain the manner of death and time since death. 3+2  
b) Define “Privileged Communication” . Give some examples in short. 1+4

**Group – B**

2. a) Write down the medico legal importance of (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Hair  
ii) Partial hanging  
iii) Tattoo Mark  
b) Write Short notes on ( **any two** ) :  $2 \times 2\frac{1}{2}$   
i) Hallucination  
ii) Rule of Nine  
iii) Post Mortem Staining

**Group – C**

3. a) Differentiate between ( **any two** ) :  $2 \times 2\frac{1}{2}$   
i) Gunshot wound of entrance and exit from a rifled firearm.  
ii) Ligature mark from hanging and strangulation by ligature.  
iii) Civil and criminal negligence.  
b) Explain why ( **any two** ) :  $2 \times 2\frac{1}{2}$   
i) Colour change does not occur in sub conjunctival haemorrhage.  
ii) Dying deposition is considered superior to dying declaration  
iii) Tardieu’s spot appear in all violent asphyxia deaths except cases of drowning.

**Group – D**

4. a) Outline the duties of a doctor, when a patient suspected to be a case of poisoning is brought to a hospital. 5  
b) Write the fatal dose of ( **any two** ) :  $2 \times 1$   
i) Mercuric Chloride  
ii) Copper sulphate  
iii) Crude opium  
c) Mention the preservatives to be used in the cases of following poisons ( **any three** ) :  $3 \times 1$   
i) Aconite  
ii) Alcohol  
iii) Hydrochloric acid  
iv) Mercuric Chloride

## FORENSIC MEDICINE & TOXICOLOGY

2009

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

### Group – A

1. a) How postmortem examination of the dead new born may help to conclude that it was a case of precipitate delivery and not a case of infanticide? 5
- b) State the functions of Medical Council of India. 5

### Group – B

2. a) Write down the medico legal importance of (**any two**) :  $2 \times 2\frac{1}{2}$ 
  - i) Tailing of wound.
  - ii) Lucid interval insanity
  - iii) Mummification
- b) Write Short notes on (**any two**) :  $2 \times 2\frac{1}{2}$ 
  - i) Obscure autopsy
  - ii) Burking
  - iii) Informed consent

### Group – C

3. a) Differentiate between (**any two**) :  $2 \times 2\frac{1}{2}$ 
  - i) Primary and secondary relaxation
  - ii) Bruise and postmortem staining
  - iii) True virgin and false virgin
- b) Explain why (**any two**) :  $2 \times 2\frac{1}{2}$ 
  - i) Stab injury over right ventricle is more dangerous than over left ventricle.
  - ii) Rape is not a medical opinion.
  - iii) Torture findings are more objective than subjective

### Group – D

4. a) Name four poisons causing constriction of pupils. Write in short the signs & symptoms and treatment of any one. 1+2+2
- b) Mention the criminal uses of the following poisons (**any two**) : 2 x 1
  - i) Sui
  - ii) Marking nut
  - iii) Capsicum seed
- c) Mention the active principle in the following poisons (**any three**) : 3 x 1
  - i) Abrus precatorius
  - ii) Cannabis indica
  - iii) Nux vomica
  - iv) Dhatura

## FORENSIC MEDICINE & TOXICOLOGY

2010

Full Marks : 40

**Use Separate answer script for each group.**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

### Group – A

1. a) Discuss the autopsy findings that will conclude that death was due to drowning in a dead body recently removed from water. 5
- b) Explain the concept of serious professional misconduct and state examples that constitute the offence of serious professional misconduct. 5

### Group – B

2. a) Write down the medico legal importance of (**any two**) : 2 x 2
  - i) Lochia
  - ii) Spalding's sign
  - iii) Abrasion collar
- b) Write Short notes on ( **any two** ) : 2 x 2
  - i) Self infected wounds
  - ii) Boxing attitude
  - iii) Privileged communication

### Group – C

3. a) Differentiate between ( **any two** ) : 2 x 2
  - i) Ante mortem and post mortem wounds
  - ii) Ante mortem and post mortem burns
  - iii) Wound of entrance and exit caused by a bullet
- b) Explain why ( **any two** ) : 2 x 2
  - i) Hydrostatic test is not conclusive of live birth
  - ii) Non-detection of spermatozoa and semen in the vaginal swabs from a true victim of rape
  - iii) Non-detection of poisonous substances on chemical analysis of viscera in a case of death due to poisoning.

### Group – D

4. a) Explain the meaning of the term 'Drug abuse' and enumerate the differences between drug habituation and drug addiction. 1+2+2
- b) Write short notes on ( **any two** ) :
  - i) Plumbism
  - ii) Vitriolage
  - iii) Aconite
- c) Mention criminal uses in following poisons ( **any two** ) : 1 x 2
  - i) Aconite
  - ii) Dhatura seeds
  - iii) Calotropis

## FORENSIC MEDICINE & TOXICOLOGY

2011

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

### Group – A

1. a) Discuss the autopsy findings to opine as to the cause and nature of death in a dead body with ligature mark around neck. 5  
b) Write in short, the constitution and function of Medical Council of India and State Medical Council.  $2\frac{1}{2} + 2\frac{1}{2}$

### Group – B

2. a) Write down the medico legal importance of (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Algor Mortes  
ii) Parallel lines of bruise  
iii) Arborescent marking  
b) Write Short notes on ( **any two** ) :  $2 \times 2\frac{1}{2}$   
i) Battered baby syndrome  
ii) Artificial Insemination  
iii) Res Ipsa Loquitur

### Group – C

3. a) Differentiate between ( **any two** ) :  $2 \times 2\frac{1}{2}$   
i) Dying Declaration and Dying Deposition  
ii) Burn and Scald  
iii) Human hair and Animal hair  
b) Explain why ( **any two** ) :  $2 \times 2\frac{1}{2}$   
i) Medical evidence of sexual intercourse is not legal evidence of rape  
ii) Immunological test for pregnancy is not regarded as sure sign of pregnancy  
iii) Hydrostatic test is not conclusive of live birth

### Group – D

4. a) Define chelating agents. Mention the dosage, route of administration and indication of using BAL & EDTA  $1+2+2$   
b) Write specific antidotes ( **any two** ) :  $1 \times 2$   
i) Morphine poisoning  
ii) Organophosphorus poisoning  
iii) Chronic lead poisoning  
c) Mention the preservatives to be used in the cases of following poisons ( **any three** ) :  $3 \times 1$   
i) Poisons causing convulsion  
ii) Poisons causing hurried respiration  
iii) Poisons diagnosed by odour  
iv) Poisons causing constriction of pupil

# MBBS 2<sup>nd</sup> Professional Examination, 2012

## FORENSIC MEDICINE & TOXICOLOGY

Time Allowed : 2 Hours

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions.*

*The figures in the margin indicate distribution of marks in each question.*

### Group – A

1. a) Define Rigor Mortis. Discuss in short the physio-chemical process of its development. Write the factors which influence its onset and distribution. 1+2+2
- b) Define infamous conduct in professional sense. Enumerate the examples of infamous conducts. 1+4

### Group – B

2. a) Write down the medico legal importance of (**any two**) : 2 x 2 $\frac{1}{2}$ 
  - i) 18 years of age
  - ii) Rule of nine
  - iii) Tailing of a wound
- b) Write Short notes on (**any two**) : 2 x 2 $\frac{1}{2}$ 
  - i) Contributory Negligence
  - ii) Negative Autopsy
  - iii) Impulse

### Group – C

3. a) Differentiate between (**any two**) : 2 x 2 $\frac{1}{2}$ 
  - i) True & False virgin
  - ii) Dry Drowning and Wet Drowning
  - iii) Civil & Criminal Negligence
- b) Explain why (**any two**) : 2 x 2 $\frac{1}{2}$ 
  - i) Colour change is not seen in subconjunctival haemorrhage
  - ii) One gunshot wound of entrance with multiple exit wounds
  - iii) Dying deposition is considered superior to dying declaration

### Group – D

4. a) Name the toxic salts of arsenic. Write in short the clinical features of chronic arsenic Poison 1+4
- b) Mention the active principles of:
  - i) Cannabis indica
  - ii) Semicarpus anacardium
  - iii) Croton seeds
  - iv) Strychnas nuxvomica

# MBBS 2<sup>nd</sup> Professional Examination, 2013

## Forensic Medicine & Toxicology

Time Allowed : 2 Hours

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions.*

*The figures in the margin indicate distribution of marks in each question.*

### Group – A

1. a) Define rape. Discuss as a medical officer how you will proceed to examine a girl alleged to have been raped 24 hours earlier. 1+4  
b) Define strangulation. Describe the expected post mortem findings in a dead body alleged to have died due to strangulation by ligature. 2+3

### Group – B

2. a) Write down the medico legal importance of (**any two**) :  $2 \times 2\frac{1}{2}$   
i) pregnancy  
ii) Exhumation  
iii) Defense wound  
b) Write Short notes on (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Impotence  
ii) Euthanasia  
iii) Battered baby syndrome

### Group – C

3. a) Differentiate between (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Still born & dead born child  
ii) True & Feigned Insanity  
iii) Sweet & salt water drowning  
b) Explain why (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Hymen has little value to test virginity  
ii) Precipitate labour is almost always accidental in nature  
iii) Alkali burns are more extensive and damaging than acid burn

### Group – D

4. a) Write in short the signs, symptoms and treatment of chronic lead poisoning. 5  
b) Mention Active principals of : 1 x 5  
i) Abrus precatorius.  
ii) Dhatura  
iii) Aconite root.  
iv) Yellow oleander Nuts.  
v) Cerbera thevetia.

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2014**

**Subject – Forensic Medicine & Toxicology**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) Classify thermal injuries due to local application of heat. Describe postmortem findings in a case of death due to antemortem burn. 2+3  
b) Define still birth Briefly describe the signs in a dead born foetus. With reasoning for such signs. 1+4

**Group – B**

2. a) Write down the medico legal importance of (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Trailing of an incised wound  
ii) Teeth  
iii) Postmortem staining  
b) Write Short notes on ( **any two** ) :  $2 \times 2\frac{1}{2}$   
i) Hallucination  
ii) Informed consent  
iii) Surrogate mother

**Group – C**

3. a) Differentiate between ( **any two** ) :  $2 \times 2\frac{1}{2}$   
i) Respired lungs and unrespired lungs  
ii) Civil negligence and criminal negligence  
iii) Wound of entrance and exit caused by bullet  
b) Explain why ( **any two** ) :  $2 \times 2\frac{1}{2}$   
i) Diatom test is not confirmatory of death due to antemortem drowning  
ii) Mass of the bullet is made of lead  
iii) Test for H.C.G. hormone is not confirmatory of pregnancy of a woman.

**Group – D**

4. a) Define drunkenness. Write the treatment of methyl alcohol poisoning 1+4  
b) Write down the specific antidote for : 2 x 1  
i) Morphine poisoning  
ii) Oxalic acid poisoning  
c) Give the fatal dose of ( **any three** ) : 3 x 1  
i) Ricin  
ii) Aconitine  
iii) Kerosene oil  
iv) While arsenic  
v) Nicotine.

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2015**

**Subject – Forensic Medicine & Toxicology**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) Define Mechanical Injury. Enumerate and briefly describe different types of lacerated injury. 1+2+2  
b) Define Delusion. Briefly describe the different types of Delusion. Write Medicolegal importance of Delusion. 1+3+1

**Group – B**

2. a) Write down the medico legal importance of (**any two**) : 2 x 2 $\frac{1}{2}$   
i) Hymen  
ii) Brain Death  
iii) Lochin  
b) Write Short notes on ( **any two** ) : 2 x 2 $\frac{1}{2}$   
i) Choking  
ii) Biological Age  
iii) Hostile Witness

**Group – C**

3. a) Differentiate between ( **any two** ) : 2 x 2 $\frac{1}{2}$   
i) Live birth and still birth  
ii) Suicidal cut throat and Homicidal Cut throat injury  
iii) Temporary and permanent teeth  
b) Explain why ( **any two** ) : 2 x 2 $\frac{1}{2}$   
i) Dactylography is still considered a surest datum for identification  
ii) Abrasion is medicolegally superior to Bruise.  
iii) Spermatozoa may not be found after recent sexual intercourse in alleged rape

**Group – D**

4. a) What is Plumbism? Describe in short the sign, symptom and management of a case of plumbism. +  
5  
b) Write specific antidote for ( **any two** ) : 2 x 1  
i) Methyl alcohol poisoning  
ii) Organo phosphorus poisoning  
iii) Cobra bite  
c) Explain why? 2 x 1.5  
i) Poison may not be detected in Viscera even after death from poisoning.  
ii) Some amount of Fresh Potassium permanganate Solution is left in the stomach after completion of gastric Lavage?



**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2016**

**Subject – Forensic Medicine & Toxicology**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) Define rape as per recent amendment of 2013 as a Medical Officer. How will you examine an unmarried girl, aged around 16 years, who is alleged to have several assaults 24 hrs back. 1+4  
b) Define medical negligence and classify with example. Describe defence available by the doctor in a case of charge of medical negligence brought against him. 1+2+2

**Group – B**

2. a) Write down the medico legal importance of (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Scar mark  
ii) Contrecoup injury  
iii) Adepercere  
b) Write Short notes on (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Contributory negligence  
ii) Beveled cut  
iii) Impulse

**Group – C**

3. a) Differentiate between (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Police vs Magistrate inquest  
ii) true and feigned mental illness  
iii) Sweet water and saline water drowned  
b) Explain why (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Hymen has little value to test virginity  
ii) Delusion is regarded as one of the surest sign of insanity  
iii) Stomach tube is contradicted in cases of poisoning by Corrosive acids, strychnine and kerosene

**Group – D**

4. a) A person alleged to have been bitten by a snake, the local people killed the snake and brought the patient and dead snake to the casualty department. Now by examining both how will you decide : 2+1+2+1  
i) Whether the snake was poisonous or non-poisonous?  
ii) How the bite mark help to consider whether it was poisonous or not?  
iii) What are the snakes against which the anti-venom available in India is effective?  
iv) Name a vegetable poison which produce sign and symptom similar to snake bite.  
  
b) Write briefly on any two of the following : 2 x 2  
i) Suspended animation      ii) Conduct money      iii) Hostile witness

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2017**

**Subject – Forensic Medicine & Toxicology**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) Define Bruise. How can you determine the age of bruise? How does parallel bruise occur? 1+2+2  
b) Define Rigor mortis. Describe in brief its mechanism of formation. Discuss the other conditions mimic Rigor Mortis 1+2+2

**Group – B**

2. a) Write down the medico legal importance of (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Hyoid bone  
ii) Umbilical cord  
iii) Saliva stain  
b) Write Short notes on (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Latent finger print  
ii) Vicarious liability  
iii) Testamentary Capacity

**Group – C**

3. a) Differentiate between (**any two**) :  $2 \times 2\frac{1}{2}$   
i) Professional Negligence & Infamous conduct  
ii) Medico legal autopsy & Pathological autopsy  
iii) Secretor & Non-secretor  
b) Explain why (**any two**) :  $2 \times 2\frac{1}{2}$   
i) In Court of Law, sometimes leading questions are permitted during examination in Chief  
ii) Wilson's Second degree burn is most painful  
iii) In extremes of age, Epidural haemorrhage is rare but subdural haemorrhage is common.

**Group – D**

4. a) Write clinical features and management in case of accidental ingestion of parathion. What are the precautions to be taken to minimize occupational exposure? 2+2+1  
b) Write briefly on **any two** of the following :  $2 \times 2\frac{1}{2}$   
i) Polyvalent anti-snake venom used in India.  
ii) Anaemia and Basophilic stippling occur in chronic lead poisoning.  
iii) Legal responsibilities of a medical practitioner attending a case of suspected poisoning.

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2008**

**Subject: Microbiology**  
**Paper: I**

**Time: 2hrs**  
**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A mother of Rh D negative blood group delivered a Rh D positive baby with severe jaundice. She had Rh D positive 1<sup>st</sup> child without any complication of the baby. What immunological reaction is responsible for the jaundice of the baby? Write the mechanism of action of such immunological reaction. Give an example of one immunodiagnostic test based on this type of reaction. Write the principle of this test, in short.

1+4+1+4

or

b) Few days after tooth extraction, a 55 years lady presented with fever, malaise, lethargy and anorexia. She gave a past history of migratory polyarthrititis at 15 years of age. On clinical examination, a systolic murmur was revealed.

Name the probable clinical condition and the common organism causing the present illness? Briefly describe the laboratory diagnosis of the etiology of the present condition.

**Group - B**

2. Write short notes on ( **any three** ) :

3 x 4

- a) Gaseous disinfectants.
- b) Type I hypersensitivity.
- c) Neagler's reaction.
- d) ELISA test.

**Group - C**

3. Comment on ( **any three** ) :

3 x 4

- a) Pulmonary tuberculosis and presence/absence of AFB in sputum smear.
- b) Commensal organisms and their pathogenic potential.
- c) Skin test is more helpful in epidemiology than diagnosis of infection.
- d) Widal test has limited applicability in diagnosis of enteric fever.

**Group – D**

4. Differentiate between :

3 x 2

- a) Immune reactivity and immune tolerance.
- b) CD4+ cells and CD8+ cells.
- c) Commensal and diarrheogenic E.coli.

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2008**

**Subject: Microbiology**  
**Paper: II**

**Time: 2hrs**  
**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) AN epidemic of high fever with severe headache and progressive drowsiness within a few such cases show clear CSF. Name the probable diagnosis and aetiologic agent. Write down the mode of spread and laboratory diagnosis of such cases.

or

b) a 15 year boy presented with headache, malaise, loss of appetite, moderate fever and yellowish discoloration of urine. He has a past history of minor injury two months back, treated with wound repair and some injections. Name the agent(s) responsible for the clinical condition. How will you establish the clinical diagnosis? What prophylaxis could have prevented the condition.

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) Cytopathic effect
  - b) Hydatid cyst
  - c) Mycetoma
  - d) Onco RNA virus

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Negative stain of CSF has an important role in laboratory diagnosis of meningitis in AIDS cases.
  - b) Replac does not occur in transfusion malaria.
  - c) Influenza viruses are known to undergo antigenic variation
  - d) Anemia is frequently a result of parasitic Infections

**Group – D**

4. Differentiate between : 3 x 2
- a) Direct Immunofluorescence test and Indirect Immunofluorescence test.

# MICROBIOLOGY

2009

First Paper

Full Marks : 40

## Use Separate answer script for each group

Attempt all questions. The figures in the margin indicate distribution of marks in each question.

### Group – A

1. a) A 45 year lady presented with fever, malaise, weakness and anorexia. She gives a history of tooth extraction few days back. There is past history migratory polyarthrititis in late childhood. Clinical examination revealed fever and a systolic cardiac murmur. Name the probable clinical diagnosis and the common etiological agents causing such disease. Briefly discuss the laboratory diagnosis to establish the etiological agent. 1+2+7

or

b) A 25 year man presented in the OPD with a painless, indurated, superficial genital ulcer. The inguinal lymph nodes are swollen, discrete, rubbery and non- tender. He has history of unprotected sexual exposure. What is the provisional diagnosis? Name the causative organism(s) of this case and enumerate other agents causing sexually transmitted infections. Briefly discuss the laboratory diagnosis of the disease described above.

### Group - B

2. Write short notes on ( **any three** ) : 3 x 4
- a) Antiseptic agents for hand hygiene in health care.
  - b) Lg.m
  - c) Type I hypersensitivity
  - d) Plasmids

### Group - C

3. Comment on ( **any three** ) : 3 x 4
- a) Plasmids play a significant role in transmission of drug resistance.
  - b) Urinary tract infections can occur without significant bacteriuria.
  - c) VDRL test may be positive in people without syphilis.
  - d) Some fungi show morphological variety at different temperature.

### Group – D

4. Differentiate between : 3 x 2
- a) Exotoxin and Endotoxin.
  - b) TH1 and TH2 immune response.
  - c) Secretory and invasive diarrhea

# MICROBIOLOGY

2009

Second Paper

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A 40year truck driver presented to OPD with history of fever, weakness, wasting and chronic diarrhea for last one month. What is the probable clinical diagnosis? What is/are the etiological agent(s)? How will you confirm the diagnosis? How will you prevent the disease in the community? 1+2+4+3

or

- b) A 40 year male from Bihar presented to the hospital with history of fever, severe weakness, pallor and palpitation. On examination he had hepatomegaly and a huge splenomegaly. What is the clinical diagnosis? What is/ are the causative agent(s) of this condition? How will you confirm the diagnosis in the laboratory? 1+1+8

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) Inclusion bodies
  - b) Sabouraud's dextrose agar
  - c) Post kala-azar dermal leishmaniasis
  - d) Blackwater fever

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Importance of universal precaution for health workers.
  - b) Dengue hemorrhagic fever commonly occurs in endemic areas.
  - c) *Taenia solium* infection is more dangerous than *Taenia saginata* infection.
  - d) Viral infection may result in malignancy

**Group – D**

4. Differentiate between : 3 x 2
- a) OPV and IPV in prevention of Polio
  - b) Trophozoites of *Plasmodium vivax* and *Plasmodium falciparum*.
  - c) Cell wall of Gram positive and Gram negative bacteria

# MICROBIOLOGY

2010

First Paper

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A 23 year old lady, married recently, attended the hospital with the complaints of fever with chills, increasing urinary frequency along with urgency and dysuria, for the past 24 hours.
- What is the most probable diagnosis? 1
- What could be the infecting organism? 1
- What other aetiological agents can be responsible for such presentation? 2
- How will you proceed to find out the infecting organism in the laboratory? 6
- or
- b) A two-year old girl presented with fever, swelling of neck, pharyngitis and difficulty in deglutition, greenish black membrane in throat is seen on examination.
- What is the provisional diagnosis? 1
- What other aetiological agent can be responsible for similar presentation? 2
- Describe briefly how you will isolate the aetiological agents in the laboratory? 7

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) IgL
- b) Bacterial spores
- c) Transport media
- d) Treponema pertenue

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Well-felix is a heterophil agglutination test.
- b) Hemophilus ducreyi requires only x-factor
- c) Anaerobic bacteria do not grow on routinely prepared culture media
- d) Enterococcus is known for its multidrug resistance

**Group – D**

4. 3 x 2
- a) Chloramphenicol in the treatment of typhoid
- b) Infection type and toxin type of food poisoning.
- c) Comment on :- A combination of VDRL and TPHA tests is better than either of them alone for the diagnosis of exclusion of syphilis.

# MICROBIOLOGY

2010

Second Paper

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A 30 year old HIV positive male complains of headache, fever, vomiting and altered sensorium. He showed signs of meningitis. CSF examination showed a capsulated budding organism.

What is your probable diagnosis?

How will you confirm your microbiological diagnosis?

Enumerate certain fungal pathogens that can produce meningitis.

Or

b) A 40 year old man complains of anorexia, indigestion, hematemesis, and jaundice fever on and off associated with hepatomegaly. He gives history of blood transfusion given about 6 years back when he met with an accident in a private hospital in a small town.

What could be the aetiological agent?

1

What laboratory investigations you will perform to confirm the diagnosis?

6

How this disease could have been prevented?

2

As a responsible health officer what will be your advice to the community?

1

**Group - B**

2. Write briefly on ( **any three** ) : 3 x 4
- a) Post exposure prophylaxis
  - b) Differentiate between ankylostoma duodenale and necator americanus
  - c) Differentiate between measles and German measles
  - d) Cysticercosis

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Hypnozoites are responsible for relapse of malaria
  - b) Lysogenic cycle
  - c) Differentiate between mucor and rhizopus
  - d) Sand fly

**Group – D**

4. Write notes on ( **any two** ) : 3 x 2
- a) Autoinfection can occur in some worm infections: comment on
  - b) Dermato phytes
  - c) Comment on : observation period of 10 days is recommended when a biting dog can be observed in case of rabies



# MICROBIOLOGY

2011

First Paper

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) An adult is suffering from continuous fever for five days is brought to the hospital. On physical examination he had coated tongue, mild splenomegaly and relative bradycardia.

What is your provisional diagnosis? Name the causative bacteria. How will you establish the laboratory diagnosis?

Name the vaccines used for prevention of this disease.

1+2+5+2

or

b) A baby of four weeks is admitted to the hospital with fever, drowsiness, irritability, photophobia, vomiting. On examination, he was found to have neck rigidity. On lumbar puncture, CSF was found turbid.

What is your clinical diagnosis? Name the bacteria responsible for such illness. How will you establish the diagnosis in the laboratory?

1+3+6

**Group - B**

2. Write short notes on ( **any three** ) :

3 x 4

a) Bacteria capsule.

b) IgM

c) Non-gonococcal urethritis.

d) Plasmid

**Group - C**

3. Comment on ( **any three** ) :

3 x 4

a) Gas gangrene is polymicrobial in nature.

b) Only the presence of C. diphtheria in the throat does not suggest the person is suffering from diphtheria

c) Unrelated antigen may be used as diagnostic test

d) IgE immunoglobulin mediates type I hypersensitivity

**Group – D**

4. Differentiate between :

3 x 2

a) Flagella and Fimbria

b) Agglutination and Precipitation

c) Classical and El tor biotypes of V. cholerae

# MICROBIOLOGY

2011

Second Paper

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A middle aged male patient was complaining of alternate day fever with chill and rigor for five days. Name the parasites responsible for this. How will you establish the laboratory diagnosis? What are the complication disease? 1+6+3
- or
- b) A non-immunised child with a history of fever and loose motion presented with left sided deltoid paralysis. Name the clinical condition and etiological agent. How will you diagnosis the case in the laboratory? Discuss briefly the vaccines against this agent. What is the principle behind the recent mass immunization strategy against this agent in our country? 2+3+3+2

**Group - B**

2. Write briefly on ( **any three** ) : 3 x 4
- a) Dimorphic fungi
  - b) Serological markers of HBV infection
  - c) Hydatid cyst
  - d) Inclusion bodies

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Peripheral blood examination at mid-night is important for the diagnosis of classical filariasis.
  - b) Examination of gravid segment of Taenia helps in the identification of species.
  - c) Antigenic shift can cause oandemic
  - d) Varicella-Zoster differs from primary infection.

**Group – D**

4. Write the differences between : 3 x 2
- a) Street virus and Fixed virus
  - b) Trichophyton and Epidermophyton
  - c) Orthomyxoviridae and Paramyxoviridae

# MBBS 2<sup>nd</sup> Professional Examination, 2012

## Microbiology

### Paper I

Time Allowed : 2 Hours

Full Marks : 40

#### Use Separate answer script for each group

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

#### Group – A

1. a) A 35 year old man with a history of contact with a female sex worker has come to OPD with urethral discharge. The urethral discharge didn't show any Gram –ve diplococci . What is your diagnosis? What are the possible etiological agents? How will you proceed for laboratory diagnosis of any one of these agents? What is L farm? .5+1.5+6+2

or

- b) A 12 year old boy has been brought to emergency with severe dehydration and cold clammy extremities and history of frequent passage of painless watery stool. What is the clinical condition and etiological agent? Discuss the pathogenesis and laboratory diagnosis of this case. 1+4+5

#### Group - B

2. Write short notes on ( **any three** ) : 3 x 4
- a) Heterophil antigen
  - b) IgE
  - c) VDRL test
  - d) Mutation

#### Group - C

3. Comment on ( **any three** ) : 3 x 4
- a) Cell mediated immunity is important for recovery from viral infection
  - b) Structure of Gram +ve cell wall is different from Gram –ve organism
  - c) Plasmid has an important role in transfer of drug resistance in bacteria.
  - d) Though a commensal in GI tract E. coli may cause diarrhea

#### Group – D

4. Differentiate between : 3 x 2
- a) CD4+ and CD8+ lymphocytes
  - b) Secretory and invasive diarrhea
  - c) Lag phase and log phase of bacterial growth curve

# MBBS 2<sup>nd</sup> Professional Examination, 2012

## Microbiology

### Paper II

Time Allowed : 2 Hours

Full Marks : 40

#### Use Separate answer script for each group

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

#### Group – A

1. a) A girl while playing sustained injury for which she attended the ER of a health center, where she received one dose of Tetanus toxoid. After a few weeks she developed jaundice, loss of appetite and fever. What is your diagnosis? What are the agents and how will you proceed for the diagnosis? Is there any vaccine against any of these agents and what is that? 2+6+2

or

- b) A patient has come to OPD with elephantiasis of one leg. What are the causative agents for the illness? How the disease is transmitted? Describe the pathogenesis of the disease. How will you diagnose the case in the laboratory? 1+1+4+4

#### Group - B

2. Write short notes on ( **any three** ) : 3 x 4
- a) PKDL
  - b) Dengue haemorrhagic fever. (DHF)
  - c) Mycetoma
  - d) Enumerate viral, parasite and fungal opportunistic infections associated with HIV infection

#### Group - C

3. Comment on ( **any three** ) : 3 x 4
- a) Relax is not associated with each and every malarial infection
  - b) Epstein–barr virus has a role in number of malignant disease
  - c) Influenza vaccine does not give long term protection against influenza
  - d) Hepatitis C virus

#### Group – D

4. Differentiate between : 3 x 2
- a) Cyst of *E. histolytica* and *E. coli*
  - b) *Microfilaria* of *W. bancrofti* and *B. malayi*
  - c) Live and Killed palio vaccine

# MBBS 2<sup>nd</sup> Professional Examination, 2013

## Microbiology

### Paper I

Time Allowed : 2 Hours

Full Marks : 40

#### Use Separate answer script for each group

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

#### Group – A

1. a) A middle aged person is suffering from lowgrade fever for 2 months along with cough and occasional haemoptysis and gradual weight loss. Acid fast bacilli found on sputum smear examination. What is your probable diagnosis? Name the etiological agent. Briefly discuss the procedures adopted in the laboratory for the identification and isolation of AFB from the sputum sample. How the immune status of such a patient can be assessed? 1+2+4+3

or

- b) Two friends went to a Chinese restaurant. They had soup followed by fried rice and chilly chicken. After 2 hours they started vomiting followed by diarrhea. They also developed fever. On examination, the blood pressure was found to be low. What is your diagnosis? What is the mechanism behind this manifestation? How can you diagnose the case in the laboratory. 1+4+5

#### Group - B

2. Write short notes on ( **any three** ) : 3 x 4
- a) Enrichment media
  - b) Halophilic Vibrio
  - c) IgE
  - d) Primary immune response

#### Group - C

3. Comment on ( **any three** ) : 3 x 4
- a) Microbiological wastes should be segregated before disposal
  - b) Phages are important tools for gene transfer in bacteria.
  - c) Isolation of *C. diphtheriae* from clinical sample does not confirm diphtheria.
  - d) VDRL positivity does not necessarily mean *Treponema pallidum* infection.

#### Group – D

4. Differentiate between : 3 x 2
- a) T lymphocytes and B lymphocytes
  - b) Immunofluorescence and ELISA
  - c) Dry heat and moist heat sterilization

# MBBS 2<sup>nd</sup> Professional Examination, 2013

## Microbiology

### Paper II

Time Allowed : 2 Hours

Full Marks : 40

#### Use Separate answer script for each group

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

#### Group – A

1. a) A boy, having a history of dogbite 3 weeks ago has been admitted in the hospital with fever, headache and muscle spasm particularly while lying to drink water. 2+4+4

- i) What is the clinical diagnosis and etiological agent?
- ii) Discuss shortly, the laboratory diagnosis of the disease.
- iii) What is post exposure prophylactic treatment?

or

b) A 26 year old man, who is security guard by profession and working at Kolkata was brought to the emergency room of your hospital with fever, headache and diarrhea. As stated, the fever is accompanied by chill and rigor and coming intermittently for last 10 days. Each episode of fever persists for few hours and comes down with profuse sweating. For this symptoms he had been treated with some antibiotics by local medical practitioner. At the time of examination, his body temperature is raised, blood pressure was 110/70 and spleen was palpable.

- i) Name the probable clinical diagnosis.
- ii) the common causative micro-organism(s) and the vector implicated.
- iii) Describe the Laboratory diagnosis of such a case. 1+2+1+6

#### Group - B

2. Write briefly on ( **any three** ) : 3 x 4

- a) Cysticercosis
- b) Negri Bodies
- c) Rota virus
- d) Candida albicans

#### Group - C

3. Comment on ( **any three** ) : 3 x 4

- a) Interferon has some role in the contentment of viral infection
- b) Influenza virus is usually associated with antigenic variation
- c) Relapse is associated with BT malaria.
- d) Complications of dengue virus are immunologically mediated.

#### Group – D

4. Differentiate between : 3 x 2

- a) Neural and non-neural vaccines against rabies
- b) Morphology of early trophozoites of plasmodium vivax and plasmodium falciparum
- c) Cestode and Nematode

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2014**

**Subject: Microbiology**

**Paper: I**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A two year old boy has been brought to the emergency with high fever, vomiting and headache. On physical examination, there was neck rigidity 1+1+5+3

- i) What is your provisional diagnosis?
- ii) What are the causative bacteria in such a case?
- iii) How will you proceed for laboratory diagnosis of this disease?
- iv) What are the vaccines available?

or

- b) A 3 year old child presents to the OPD with acute sore throat, dysphagia, salivation and mild fever. On examination, an adherent thick grayish patch is found over the tonsil and oropharynx which bleeds on removal.

- i) What is the clinical condition? 1+1+6+2
- ii) What is the causative bacteria?

How will you collect the sample and proceed for laboratory diagnosis?

What is the method of prevention of such infection?

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) Toxic shock syndrome
  - b) Prozone phenomenon
  - c) Transport media
  - d) Monoclonal antibody

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Result of a single Widal test should be interpreted with caution.
  - b) Coagulase negative Staphylococci are never pathogenic
  - c) Antimicrobial resistance may be due to several factors
  - d) Self antigens are usually non-antigenic, but there are exceptions.

**Group – D**

4. Differentiate between : 3 x 2
- a) Gram positive and Gram negative bacterial cell wall
  - b) Exotoxin and endotoxin
  - c) Primary and Secondary immunity

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2014**

**Subject: Microbiology**

**Paper: II**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A 30 year old male from Pakur, Bihar has been admitted in the hospital with a history of continuous fever, weakness, blackening of skin and huge hepato-splenomegally 1+1+4+4
- i) What is the provisional diagnosis?
- ii) Name the causative agent
- iii) Describe the pathogenesis of the disease
- iv) How will you diagnose the disease in the laboratory?
- or
- b) A boy aged 10 years, residing in rural area with low socio-economic status attends the OPD with complaints of indigestion, weakness and occasional pain in the epigastrium. On examination he is found to be anaemic with low haemoglobin level. 2+4+4
- i) Name the probable helminths causing such clinical condition.
- ii) Discuss the pathogenesis of such disease
- iii) Discuss the laboratory diagnosis of the disease.

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) Occult filariasis
- b) Prion
- c) Opportunistic fungi
- d) Cytopathogenic effect

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Bacteriophages may cause genetic alteration in bacteria.
- b) Measles may cause CNS infection.
- c) Role of cytokines may be important in malaria.
- d) Viruses can be cultivated

**Group – D**

4. Differentiate between : 3 x 2
- a) Microfilaria of Wucheria bancrofti and Brugia malayi
- b) Actinomycotic and Eumycotic Mycetoma
- c) Flootation and Sedimentation methods of stool concentration techniques



**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2015**

**Subject: Microbiology**

**Paper: I**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A 7 yrs/M presented with fever, pallor, gum bleeding and lymphadenopathy. Peripheral blood smear revealed fair number of abnormal lymphocytes 2+6+2
- i) What is your provisional diagnosis?
- ii) How will you diagnosis the case in the laboratory?
- iii) Enumerate four important prognostic factors

**Group - B**

2. Comment on **any two** of the following : 2 x 5
- a) Thrombus differs from clot
- b) Inflammation is beneficial
- c) Significance of peripheral blood smear

**Group - C**

3. Comment on **any two** of the following : 2 x 5
- a) Classification of Diabetes Mellitus
- b) Difference between Coagulative Necrosis & Liquifactive Necrosis
- c) Pathogenesis of anaemia in  $\beta$ -thalassemia.

**Group – D**

4. Write short notes on **any two** of the following : 2 x 5
- a) Transcoelomic spread
- b) Fine Needle Aspiration Cytology
- c) Conjugated Hyperbilirubinemia
- d) Transfusion Reaction

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2015**

**Subject: Microbiology**

**Paper: II**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A 59yrs male presented with acute pain on the left anterior chest wall, severe dyspnea, profuse sweating rapid thread pulse. 2+5+3
- i) What is your provisional diagnosis?
- ii) Enumerate risk factors & pathogenesis
- iii) Enumerate important diagnostic biochemical markers.

**Group - B**

2. Comment on **any two** of the following : 2 x 5
- a) Pneumoconiosis is an inhalation disorders of mineral dust, organic & inorganic dusts particles.
- b) Aetiology of peptic ulcer and gastric carcinoma is same
- c) Ulcerative colitis and chron's disease are different macroscopically and microscopically.

**Group - C**

3. Answer **any two** of the followings: 2 x 5
- a) Enumerate causes of cirrhosis of liver
- b) Pathogenesis of carcinoma of cervix
- c) Familial adenomatous polyposis

**Group – D**

4. Write short notes on **any two** of the following : 2 x 5
- a) Renal cell carcinoma
- b) Tuberculous Lymphadenitis
- c) CSF in Acute Pyrogenic Meningitis vs Tuberculous Meningitis
- d) Giant cell Tumour of Bone.

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2016**

**Subject: Microbiology**

**Paper: I**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A child has been brought to the hospital emergency with passage of rice water stool and severe dehydration with tachycardia and feeble pulse. What is your provisional diagnosis? Write down the pathogenesis of the disease. Give an outline of laboratory diagnosis of the disease. 1+3+6
- or
- b) A male baby of 4 weeks has been admitted to the hospital with fever, drowsiness, irritability, vomiting and photophobia. On examination there was neck rigidity and CSF was turbid. What is your clinical diagnosis? Name the predominant bacterial agents causing such illness. How will you proceed to diagnose the case in the laboratory? 1+3+6

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) Toxic shock syndrome
  - b) Bacterial capsule
  - c) IgA
  - d) Satellitism

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) T helper cells have a major role in immune response
  - b) All diphtheria bacilli are not toxigenic
  - c) Passive immunization is helpful in certain conditions
  - d) For the diagnosis of infective conditions a rise in titre of antibodies is more meaningful

**Group – D**

4. Differentiate between : 3 x 2
- a) Streptococcus pneumonia and Streptococcus viridans
  - b) Cell wall of gram positive and gram negative bacteria
  - c) Anthrax bacilli and Anthracoid bacilli

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2016**

**Subject: Microbiology**

**Paper: II**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A ten year old boy suffering from thalassemia was admitted to the hospital with complaints of anorexia, indigestion and yellow discolouration of eyes and urine. On examination he had moderate jaundice. He also gave a history of multiple blood transfusions. What may be the probable diagnosis? How will you proceed to make a microbiological diagnosis? What prophylactic measures may be taken to prevent such a condition?

1+6+3

or

- b) A 30 year old cachectic male migrant labour from attended the medical OPD with complain of fever, severe weakness, pallor and palpitation. On examination he had hepatomegaly and huge splenomegaly. What is the clinical diagnosis and the causative agent of this condition? How will you confirm the diagnosis in the laboratory?

1+1+8

**Group - B**

2. Write short notes on ( **any three** ) :

3 x 4

- a) Larva Migrans
- b) Japanese Encephalitis
- c) Dimorphic Fungi
- d) Prion Disease

**Group - C**

3. Comment on ( **any three** ) :

3 x 4

- a) Emergence of new dengue serotype in an endemic area usually leads to complications
- b) Culture is necessary for identification of Dermatophytes
- c) Microfilaria can be demonstrated in stained smear from peripheral blood in any time of the day.
- d) Viruses are very often responsible for diarrhoea in children.

**Group – D**

4. Differentiate between :

3 x 2

- a) Cryptococcus and Candida albicans
- b) Definitive host and intermediate host
- c) T. solium and T. saginata

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2017**

**Subject: Microbiology**

**Paper: I**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A 25 year old female patient was brought to the hospital who has been suffering from fever and weakness for last 10 days. Physical examination revealed raised body temperature and there was relative bradycardia, coated tongue, splenomegaly and hepatomegaly. Write the probable clinical diagnosis. Name the causative bacterial agent. Describe the laboratory diagnosis of such a case. Mention how occurrence of such disease can be prevented? 2+1+5+2

or

- b) A truck driver aged 26 years attended the hospital with complaints of one painless ulcer over his external genitalia. He gave history of sexual exposure 2 months back. Apart from the ulcer, physical examination revealed swollen non-tender discrete inguinal lymph node. Write the probable clinical diagnosis. Name the probable causative bacteria. Describe the laboratory diagnosis of such a case. Mention what other test you should perform to rule out any other infection that may accompany such case. 1+1+6+2

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) Bacterial spore
  - b) ELISA test
  - c) Nongonococcal Urethritis (NGU)
  - d) Environmental Mycobacteria

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) There are many ways for genetic alteration in bacteria
  - b) C3 plays the pivotal role in complement activation
  - c) Post primary Tuberculosis differs in many ways from Primary Tuberculosis
  - d) Nocardia differs in many ways from Actinomycetes

**Group – D**

4. Differentiate between : 3 x 2
- a) Tyndallisation and Inspissation
  - b) Primary immune response and Secondary immune response
  - c) Infection and Toxin type of food poisoning

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2017**

**Subject: Microbiology**

**Paper: I**

**Time: 2hrs**

**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. a) A middle aged man presented with alternate day sudden onset fever associated with chill and rigor for the last 10 days. Fever subsided with sweating within a few hours. On examination, he was found to be anaemic and have mild hepatomegaly. What might be the most possible clinical condition? Enumerate the probable etiological agents. What are the routes of entry of such agents? Describe the laboratory Diagnosis of such condition. 1+2+1+6

or

- b) A 30 year old man, truck driver by profession, complained of generalized weakness along with persistent diarrhea for one month and loss of weight. He had a history of exposure a few months back. What might be the clinical condition? Which etiological agent/s are responsible for such a condition? How will you proceed for laboratory diagnosis? 1+2+7

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) Inclusive bodies
  - b) Macroconidia of Dermatophytes
  - c) Hydatid cyst
  - d) NIH swab

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Surgical intervention may be necessary in case of Ascariasis infestation
  - b) Some viruses are oncogenic
  - c) SDA medium is a selective medium for fungal culture
  - d) Anti rabies neural vaccines are not used now a days

**Group – D**

4. Differentiate between : 3 x 2
- a) Endothrix and Ectothrix
  - b) OPV and IPV
  - c) Entamoeba histolytica and Entamoeba coli

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2008**

**Subject: Pathology**  
**Paper: I**

**Time: 2hrs**  
**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 16 year old girl presented with purpuric rashes all over the body which is episodic in nature. What is your provisional diagnosis? How will you proceed to establish the diagnosis? 2+8

**Group - B**

2. a) Define necrosis. Enumerate the different types of necrosis with examples. Discuss the differences between necrosis and apoptosis. 1+4+5

or

- b) Define neoplasia. Classify neoplasia on behavioral basis of tumors and write their differences. Describe the microscopic features of a malignant cell. 2+6+2

**Group – C**

3. a) What is amyloidosis? What are the different types of amyloidosis? Discuss the pathogenesis of primary amyloidosis. 2+3+5

or

- b) Define healing. Describe the stages of wound healing in a lacerated wound. Mention the factors that modify wound healing. 2+3+5

**Group – D**

4. Write short notes on ( **any five** ): 5 x 2
- a) Peripheral blood pressure in C.M.L
  - b) Glycosylated haemoglobin
  - c) Sickling test
  - d) Bone marrow picture of aplastic anaemia
  - e) Type IV hypersensitivity
  - f) Gangrene

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2008**

**Subject: Pathology**  
**Paper: II**

**Time: 2hrs**  
**Full Marks :40**

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 12 year boy presented with high fever and projectile vomiting. On examination, he had stupor and neck rigidity. What is your diagnosis? Give the important differential diagnosis. Discuss the investigations with results for confirming your diagnosis. Enumerate the complications of the most important investigative procedure. 2+3+3+2

**Group - B**

2. a) Briefly outline the pathogenesis of acute rheumatic fever. Mention the cardiac lesions that can occur in rheumatic fever. 6+4

or

- b) What is lobar pneumonia? Describe briefly the sequences of pathological changes that occur in lung in this disease. What are the complications of lobar pneumonia? 2+6+2

**Group – C**

3. a) Classify tumors of kidney. Describe the gross and histological features of renal cell carcinoma. What is paraneoplastic syndrome? 4+4+2

or

- b) Define and classify cirrhosis of liver. Mention the complications of cirrhosis. Describe the causes of ascites in cirrhosis. 4+4+2

**Group – D**

4. Write short notes on ( **any five** ): 5 x 2
- a) Basal cell Carcinoma.
  - b) Benign cystic teratoma of ovary.
  - c) Early gastric carcinoma
  - d) Occult blood test
  - e) Ghon's complex
  - f) Seminoma



# PATHOLOGY

2009

Paper-I

Full Marks 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

## Group – A

1. A 60 year old male presented with progressive weakness, low grade fever, generalized lymphadenopathy and splenomegaly. Blood examination shows Hb-10.0g/dl, WBC—86000 /c mm. 90% of the WBC are small mononuclear cells.
- a) What are the possible causes?
- b) How will you proceed to investigate the case to establish its diagnosis? 2+8

## Group - B

2. a) Define oedema. Mention the different mechanisms producing renal oedema. 2+8
- or
- b) Describe the mechanism of irreversible cell injury. 10

## Group – C

3. a) Define neoplasia. Describe the characteristics of malignant neoplasm. 2+8
- or
- b) Define and classify leukaemia. Describe the laboratory findings of Acute Myeloblastic Leukaemia. 4+6

## Group – D

4. Write short notes on ( **any five** ): 5 x 2
- a) Type II hypersensitivity
- b) Laboratory diagnosis of Amyloid
- c) Bleeding time and Clotting time
- d) Opsonin
- e) Metaplasia
- f) Packed cell volume

# PATHOLOGY

2009

*Paper-II*

Full Marks 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

## **Group – A**

1. A 14 year old female presents with a painful tender swelling in the right thigh accompanied by fever, leukocytosis and high ESR. Plain X-ray shows osteolytic with 'onion skin' appearance.
  - a) What is your diagnosis?
  - b) Describe the gross and microscopic features of this lesion. 2+3+5

## **Group - B**

2. a) Describe the aetiology and pathology of Rheumatoid Heart disease. Enumerate its complications. 3+5+2  
or  
b) Describe briefly the aetiologic factors of chronic peptic ulcers. Write the gross and microscopic features of benign gastric ulcer. 3+3+4

## **Group – C**

3. a) Classify breast tumours. Describe the gross and microscopic features of common malignant tumour of breast. 2+3+5  
or  
b) Classify ovarian tumour. Describe the gross and microscopic features of a germ cell tumour of ovary. 3+3+4

## **Group – D**

4. Write short notes on ( **any five** ): 5 x 2
  - a) Fine needle aspiration cytology
  - b) Ulcerative colitis
  - c) Wilm's Tumour
  - d) Diabetic nephropathy
  - e) CSF in pyogenic meningitis
  - f) Primary tuberculosis.

## PATHOLOGY

2010	Paper-I	Full Marks 40
1. A 10-year old boy presents with pallor and splenomegaly. List the differential diagnosis. Enumerate the investigations that are necessary to evaluate this case if a hemolytic anemia is suspected.		2+8
2. Comment on any two of the following :		5x2
(a) Tobacco smoking and disease.                      (b) Grading and staging of malignant tumours and its relevance.		
(c) FAB classification of acute leukemia and its basis.		
3. Answer any two of the following :		5x2
(a) Arterial and venous thrombosis.                      (b) Transudate and exudate                      (c) Type III hypersensitivity reaction		
4. Write short notes on any two of the following :		5x2
(a) Dystrophic calcification                      (b) Apoptosis                      (c) X-linked diseases.		

2010	Paper-II	Full Marks 40
1. A 45 year old hypertensive developed acute precordial chest pain. What are the possible diagnose? Describe the various laboratory findings in such a case. What are the gross and microscopic changes that you would expect to find in the heart?		2+4+4
2. Give the pathogenetic mechanism of any two of the following :		5x2
(a) Colorectal carcinoma                      (b) Alcoholic cirrhosis                      (c) Primary tuberculosis of the lung 4		
3. Comment on any two of the following :		5x2
(a) Role of FNAC in breast carcinoma.                      (b) Renal Function Tests in chronic renal failure                      (c) Laboratory findings in Diabetes Mellitus.		
4. Write short notes on any two of the following :		5x2
(a) H pylori and gastric disease                      (b) Ewing's Sarcoma.                      (C) Hashimotos Thyroiditis		

# PATHOLOGY

2011

Paper-I

Full Marks 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

## Group – A

1. A 60 year old male presents with low back pain and anaemia. X ray reveals multiple osteolytic lesions.
  - a) What is the provisional diagnosis?
  - b) How will you proceed to confirm the diagnosis?

2+8

## Group - B

2. Comment on any two of the following:
  - a) Necrosis differs from Apoptosis.
  - b) Presence of spherocytes in peripheral blood smear is not pathognomonic of hereditary spherocytosis.
  - c) Amyloidosis is the result of long standing chronic disease.

## Group – C

3. Answer any two of the following :
  - a) Pathogenesis of Disseminated Intravascular Coagulation.
  - b) Antibody dependent cell mediated cytotoxicity.
  - c) Difference between carcinoma and sarcoma

## Group – D

4. Write short notes on ( **any two** ):
  - a) Down's syndrome
  - b) Fresh frozen plasma(FFP)
  - c) Carcinoma in-situ
  - d) Giant cell

5 x 2

## PATHOLOGY

2011

*Paper-II*

Full Marks 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

### Group – A

1. A 64 year old man who is a chain smoker is suffering from chronic cough. A 5 kg weight loss in last 3 months. Physical examination shows clubbing of fingers. A chest radiograph shows an ill-defined 3 cm mass involving left hilum of the lung. Serum calcium level is 12.3 mg/dl
- (a) What is the provisional diagnosis?
  - (b) Describe the laboratory procedure for diagnosis of the case.
  - (c) Why serum calcium level is elevated in this case?
- 2+6+2

### Group - B

2. Comment on any two of the following:
- a) Serological markers of HBV induced Infective Hepatitis.
  - b) Fine Needle Aspiration Cytology of a thyroid nodule
  - c) Pancarditis in Rheumatic heart disease.
- 5x2

### Group – C

3. Write the pathogenetic mechanism of any two of the following:
- a) Ascites in Cirrhosis of liver
  - b) Diabetic nephropathy
  - c) Sequestrum leads to involucrum formation
- 5x2
4. Write short notes on ( **any two** ):
- a) Seminoma of testes
  - b) Glycosylated hemoglobin (Hb A<sub>1c</sub>)
  - c) Cervical Intraepithelial Neoplasm
  - d) CSF in tuberculous meningitis
- 5 x 2

# MBBS 2<sup>nd</sup> Professional Examination, 2012

## PATHOLOGY

### Paper – I

Time Allowed : 2 Hours

Full Marks : 40

#### Use Separate answer script for each group

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

#### Group – A

1. A person suffering from type I Diabetes mellitus develop symptoms over 24 hours. Nausea, vomiting, severe thirst, polyuria. Complaining of abdominal pain, kushmal breathing with fruity odour on the patients breath, and abdominal tenderness is revealed on examination.
  - a) What is your provisional diagnosis?
  - b) What laboratory diagnosis will be performed to establish the diagnosis?
  - c) Explain in short the pathophysiology of the condition.

#### Group - B

2. Comment on *any two* of the following: 5x2
  - a) Significance of peripheral blood smear.
  - b) Transudate and exudate indicate different clinical conditions.
  - c) Presence of chronic inflammatory cells does not always indicates chronic inflammation, it has other hallmark too.

#### Group – C

3. Answer *any two* of the following : 5x2
  - a) Pathogenesis of renal oedema.
  - b) Causes of unconjugated hyperbilirubinemia.
  - c) Peripheral blood and bone marrow picture of megaloblastic anemia.

#### Group – D

4. Write short notes on ( *any two* ): 5x2
  - a) Difference between hypertrophy and hyperplasia.
  - b) Haemophilia.
  - c) Rh incompatibility.
  - d) Coagulation necrosis.

**MBBS 2<sup>nd</sup> Professional Examination, 2012**

**PATHOLOGY**

**Paper – II**

Time Allowed : 2 Hours

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A seven year old boy abruptly developed puffiness of face, oliguria and oedema about two weeks after recovery from sore throat.
  - a) What is your provisional diagnosis.
  - b) What laboratory and other investigation to be done to establish the diagnosis.

**Group - B**

2. Comment on any two of the following:
  - a) Fine needle aspiration cannot replace Histological study of tissue.
  - b) Tumour arising from end of long bone may be benign or malignant. Comment with at least one example in each case.
  - c) Routes of spread of malignant tumour are different.

**Group – C**

3. Answer any two of the following :
  - a) Pathogenesis of chronic osteomyelitis.
  - b) Cervical intra-epithelial neoplasia.
  - c) Investigation of myocardial infarction.

**Group – D**

4. Write short notes on ( **any two** ):
  - a) Complication resulting due to gall stones.
  - b) Benign hyperplasia of Prostrate.
  - c) Dermoid cyst of ovary.
  - d) Carcinoma in situ.

5 x 2

**MBBS 2<sup>nd</sup> Professional Examination, 2013**

**PATHOLOGY**

**Paper – I**

Time Allowed : 2 Hours

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A male child of 5 years age presented with epistaxis and petechiae following fever two weeks back.
  - a) What is your provisional diagnosis?
  - b) What laboratory investigation is to be performed to establish your diagnosis?
  - c) Explain in short the pathogenesis of the condition.

1+5+4

**Group - B**

2. Comment on any two of the following:
  - a) Phlebothrombosis and thrombophlebitis are not same.
  - b) Importance of paraneoplastic syndrome
  - c) Transfusion related diseases can be avoided

**Group – C**

3. Answer any two of the following :
  - a) Difference between carcinoma and sarcoma
  - b) Peripheral blood picture in haemolytic anaemia
  - c) Pathogenesis of amyloidosis

**Group – D**

4. Write short notes on ( **any two** ):
  - a) Gaucher's diseases
  - b) Turner's syndrome
  - c) Leukaemoid reaction
  - d) Karyotyping

5 x 2



**MBBS 2<sup>nd</sup> Professional Examination, 2013**

**PATHOLOGY**

**Paper – II**

Time Allowed : 2 Hours

Full Marks : 40

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 70 years old man was brought to hospital emergency room at dawn with severe precordial pain, profuse sweating and respiratory distress. On examination radial pulse was not palpable. BP – 80/? mm of Hg. 2+6+2
  - a) What is your provisional diagnosis?
  - b) How do you proceed to investigate the case in the laboratory?
  - c) What are the complications?

**Group - B**

2. Comment on any two of the following:
  - a) Role of exfoliative cytology in the diagnosis of neoplasm.
  - b) Fate of primary complex of pulmonary tuberculosis
  - c) Viral hepatitis leading to cirrhosis

**Group – C**

3. Answer any two of the following :
  - a) Rapidly progressive glomerulonephritis (RPGN)
  - b) Macroscopic difference between peptic ulcer of stomach with ulcerative type of gastric carcinoma
  - c) Complications of cirrhosis of liver

**Group – D**

4. Write short notes on ( **any two** ):
  - a) Crohn's disease.
  - b) Osteoclastic Giant cell containing lesions of bone
  - c) Reed Sternberg cell

5 x 2

**The West Bengal University of Health Sciences**

**MBBS 2<sup>nd</sup> Professional Examination, 2014**

Subject : Pathology

Paper : I

Full Marks : 40

Time : 2 hours

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 4 years old female child presented with severe pallor and splenomegaly with history of multiple blood transfusion. Biochemical investigation reveal unconjugated hyperbilirubinemia.
- a) What is your provisional diagnosis?
  - b) What laboratory examinations are to be performed to establish the diagnosis?
  - c) What is the basic genetic defect of such case?
- 2+5+3

**Group - B**

2. Comment on any two of the following:
- a) Healing by primary intension vs healing by secondary intension
  - b) Teratoma and hamartoma are two different lesions
  - c) Dystrophic vs metastatic calcification
- 5x2

**Group – C**

3. Answer any two of the following :
- a) Pathogenesis of thrombosis
  - b) Diagnostic criteria of blastic phases of chronic myeloid leukemia
  - c) Carcinoma is a multistep process
- 5x2

**Group – D**

4. Write short notes on ( **any two** ):
- a) Klinefelter's syndrome
  - b) Decompression sickness
  - c) Coomb's test
  - d) Radiation injury
- 5 x 2

**The West Bengal University of Health Sciences**

**MBBS 2<sup>nd</sup> Professional Examination, 2014**

Subject : Pathology

Paper : II

Full Marks : 40

Time : 2 hours

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 10 years old child is admitted with puffiness of face, oliguria and smoky urine.
- a) What is your provisional diagnosis?
  - b) Describe the etiopathogenesis and morphological features observed in the target organ.
  - c) Which laboratory investigation should be done to reach the diagnosis?
- 2+6+2

**Group - B**

2. Comment on any two of the following:
- a) Alcoholism is not prerequisite for cirrhosis
  - b) Rheumatism licks the joints but bites the whole hearts
  - c) Carcinoma colon is a genetic disorder
- 5x2

**Group – C**

3. Answer any two of the following :
- a) Diagnosis and complications of pyogenic meningitis
  - b) Radiological features of important bone tumours
  - c) Nodular hyperplasia of prostate
- 5x2

**Group – D**

4. Write short notes on ( **any two** ):
- a) Acute appendicitis and its fate and complications
  - b) Neuroendocrine tumour of lung
  - c) Pleomorphic salivary adenoma
  - d) Hyperparathyroidism
- 5 x 2

**The West Bengal University of Health Sciences**  
**MBBS 2<sup>nd</sup> Professional Examination, 2015**

Subject : Pathology

Paper : I

Full Marks : 40

Time : 2 hours

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 7 years/ M presented with fever, pallor, gum bleeding and lymphadenopathy. Peripheral blood smear reveal fair number of abnormal lymphocytes.
- a) What is your provisional diagnosis?
  - b) How will you diagnosis the case in the laboratory?
  - c) Enumerate four important prognostic factors.
- 2+6+2

**Group - B**

2. Comment on any two of the following:
- a) Thrombus differs from clot
  - b) Inflammation is beneficial
  - c) Significance of peripheral blood smear.
- 5x2

**Group – C**

3. Comment on any two of the following :
- a) Classification of diabetes mellitus
  - b) Difference between Coagulative necrosis and liquefactive necrosis
  - c) Pathogenesis of anaemia in  $\beta$ -thalassemia
- 5x2

**Group – D**

4. Write short notes on ( **any two** ):
- a) Transcoelomic spread
  - b) Fine needle aspiration cytology
  - c) Conjugated hyperbilirubinemia
  - d) Transfusion reaction
- 5 x 2

**The West Bengal University of Health Sciences**

**MBBS 2<sup>nd</sup> Professional Examination, 2015**

Subject : Pathology

Paper : II

Full Marks : 40

Time : 2 hours

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 59 years male presented with acute pain on the left anterior chest wall, severe dyspnea, profuse sweating, rapidly thready pulse.
- a) What is your provisional diagnosis?
  - b) Enumerate risk factors and pathogenesis
  - c) Enumerate important diagnostic biochemical markers
- 2+5+3

**Group - B**

2. Comment on any two of the following:
- a) Pneumoconiosis is an inhalation disorder of mineral dust, organic and inorganic dust particles.
  - b) Aetiology of peptic ulcer and gastric carcinoma is same.
  - c) Ulcerative colitis and Chron's disease are different macroscopically and microscopically
- 5x2

**Group – C**

3. Answer any two of the following :
- a) Enumerate causes of cirrhosis of liver
  - b) Pathogenesis of carcinoma of cervix
  - c) Familial adenomatous polyposis
- 5x2

**Group – D**

4. Write short notes on ( **any two** ):
- a) Renal cell carcinoma
  - b) Tuberculous lymphadenitis
  - c) CSF in acute pyogenic meningitis vs tuberculous meningitis
  - d) Giant cell tumour of bone
- 5 x 2

**The West Bengal University of Health Sciences**

**MBBS 2<sup>nd</sup> Professional Examination, 2016**

Subject : Pathology

Paper : I

Full Marks : 40

Time : 2 hours

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 45 year old male has a history of partial gastrectomy. Presently he has anaemia and neurological symptoms.
- What is your provisional diagnosis?
  - How will you proceed to investigate so as to establish your diagnosis?
  - Discuss the pathogenesis of this anaemia.
- 2+5+3

**Group - B**

2. Comment on any two of the following:
- Direct spread is different from metastasis
  - Leukemoid reaction and leukemia are different
  - Role of complement in acute inflammation
- 5x2

**Group – C**

3. Answer any two of the following :
- Healing by primary and secondary intention differ in the process of wound healing
  - Pathogenesis of oedema due to cardiac diseases
  - Laboratory diagnosis of multiple myeloma
- 5x2

**Group – D**

4. Write short notes on ( **any two** ):
- Peripheral blood picture of chronic myeloid leukemia
  - Significance of reverse blood grouping
  - Radiation injury
  - Hypovolemic shock
- 5 x 2

**The West Bengal University of Health Sciences**

**MBBS 2<sup>nd</sup> Professional Examination, 2016**

Subject : Pathology

Paper : II

Full Marks : 40

Time : 2 hours

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 5 year old boy develop puffiness of face, oliguria and mild hypertension two weeks after an attack of sore throat.
- a) What is your provisional diagnosis?
  - b) What laboratory investigation need to be done to confirm the diagnosis?
  - c) Mention fates of this condition.
- 2+5+3

**Group - B**

2. Comment on any two of the following:
- a) A small percentage of hepatitis B infection lead to hepatocellular carcinoma
  - b) Screening based on cervical cytology is useful in the preparation of carcinoma cervix
  - c) Primary and secondary tuberculosis of lung has distinct morphologies
- 5x2

**Group – C**

3. Answer any two of the following :
- a) Long term complications of diabetes mellitus
  - b) Pathogenesis of osteomyelitis
  - c) Lesions in the heart due to acute rheumatic fever
- 5x2

**Group – D**

4. Write short notes on ( *any two* ):
- a) Seminoma testes
  - b) Hashimoto Thyroiditis
  - c) Basal cell carcinoma
  - d) Complications of Atheroma
- 5 x 2

**The West Bengal University of Health Sciences**

**MBBS 2<sup>nd</sup> Professional Examination, 2017**

Subject : Pathology

Paper : I

Full Marks : 40

Time : 2 hours

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 60 year old male patient presents with low back pain and anaemia. X-ray reveals multiple osteolytic lesions.

a) What is your provisional diagnosis?

b) How will you proceed to confirm the diagnosis?

2+8

**Group - B**

2. Comment on any two of the following:

5x2

a) Granuloma and granulation tissue

b) Hyperplasia and Hypertrophy are different

c) Presence of spherocytes is not pathognomonic of hereditary spherocytosis.

**Group – C**

3. Answer any two of the following :

5x2

a) Difference between nephrosis and apoptosis

b) Blood picture of iron deficiency anaemia and biochemical findings

c) Principle and utility of Coombs' test

**Group – D**

4. Write short notes on ( **any two** ):

5 x 2

a) Langhans' Giant cell

b) Philadelphia Chromosome

c) Turner's syndrome

d) Septic shock



**The West Bengal University of Health Sciences**  
**MBBS 2<sup>nd</sup> Professional Examination, 2017**

Subject : Pathology

Paper : II

Full Marks : 40

Time : 2 hours

**Use Separate answer script for each group**

*Attempt all questions. The figures in the margin indicate distribution of marks in each question.*

**Group – A**

1. A 55 year old lady presented with hard non-tender mass of about 5 cm in diameter in left breast and retraction of nipple.
- a) What is your provisional diagnosis?
  - b) Describe the plan of investigation for the case.
  - c) Enumerate the important prognostic factors.
- 2+4+4

**Group - B**

2. Comment on any two of the following:
- a) FNAC can not replace histological study.
  - b) Thyroid swelling is not always due to colloid goiter
  - c) Cervical intraepithelial neoplasia
- 5x2

**Group – C**

3. Answer any two of the following :
- a) Pathogenesis of alcoholic cirrhosis
  - b) Germ cell tumour of ovary
  - c) Pyogenic meningitis vs viral meningitis
- 5x2

**Group – D**

4. Write short notes on ( **any two** ):
- a) Barret's oesophagus
  - b) Reed Sternberg cell
  - c) Gall stones
  - d) Rapidly Progressive Glomerulonephritis (RPGN)
- 5 x 2

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2008**

**Subject: Pharmacology**  
**Paper: I**

**Time: 2 hrs.**  
**Full Marks : 40**

**Use Seperate answer script for each group**

*Attempt all questions. The figures in the margine indicate distribution of marks in each questions*

**Group- A**

1. a) Classify drugs used in treatments of hyperlipidnemia. What is the mechanism of action of statins and what effects do they have on the lipid profile? What are their important adverse effects ? 4+4+2
- or
- b) How will you treat a case of acute pulmonary oedema? Mention two side effects of each drug used. 7+3

**Group-B**

2. Explain why? (*any three*) : 3 x 3
- a) ACE inhibitors are preferred in the treatment of hypertension with diabetes mellitus.
  - b) Treatment of iron – deficiency anaemia with oral-iron usually requires for many months.
  - c) Nasal decongestant should not used for prolonged period.
  - d) Dopamine in cardiogenic shock.

**Group – C**

3. Describe the mechanism of action (*any three*) : 3 x 3
- a) Vitamin K as an antidote in Warfarin overdose.
  - b) Ergotamine in the treatment of acute attack of migraine.
  - c) Thiazide diuretics in treatment of hypertension.
  - d) Alpha-adrenergic blockers in the treatment of benign prostatic hyperplasia.

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Metered dose inhaler.
  - b) Dimercaprol.
  - c) Tolerance.
  - d) Drug antagonism.
  - e) Inhaled cortico steroids.

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2008**

**Subject: Pharmacology**  
**Paper: II**

**Time: 2 hrs.**  
**Full Marks : 40**

**Use Seperate answer script for each group**

*Attempt all questions. The figures in the margine indicate distribution of marks in each questions*

**Group- A**

1. a) Classify Antitubercular drugs. What is the regimen for treatment of a freshly detected smear positive pulmonary tuberculosis case in adult and why is this regimen based on combination of drugs? What is the important adverse reaction of ethambutol? 3+5+2
- Or
- b) Give an outline of the treatment of Parkinson's disease. Mention the drugs responsible for producing extra pyramidal symptoms. How will you treat drugs induced Parkinsonism? 6+2+2

**Group-B**

2. Explain why? (*any three*) : 3 x 3
- a) Penicillins are ineffective in Mycoplasma Pneumonia infection.
  - b) Amphotericin B liposomal preparation is better than conventional amphotericin B preparation in treatment of kala azar.
  - c) Clavulamic acid is combined with Amoxixillin.
  - d) Proton pump inhibitors are powerful suppressors of gastric acid secretion.

**Group – C**

3. What are the effects of (*any three*) : 3 x 3
- a) Lignocaine on sensory neurons.
  - b) Methotrexate on malignant cells.
  - c) Pioglitazone in diabetes mellitus.
  - d) Oxytocin on uterus.

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Emergency Contraceptives.
  - b) Mifepristone.
  - c) Artemisinin derivates in the treatment of malaria.
  - d) d-penicillamine.
  - e) Pentazocine.

# PHARMACOLOGY

2009

First Paper

Full Marks 40

## Use Seperate answer script for each group

Attempt all questions. The figures in the margine indicate distribution of marks in each questions

### Group – A

1. (a) Enumerate the drugs used in the treatment of acute myocardial infarction. Mention the pharmacological basis of beta blockers in myocardial infarction. 5+5
- Or (b) Enumerate the drugs used in the treatment of Glaucoma. Mention the mode of action of Pilocarpine in glaucoma and its side effects. 5+3+2

### Group – B

2. Explain why (*any three*) : 3 x 3
- a) Pyridostigmine is used in the treatment of Myasthenia gravis.
  - b) Frusemide is regarded as a high ceiling diuretic.
  - c) Ramipril is preferred as an antihypertensive agent associated with diabetes mellitus.
  - c) Nebulised salbutamol is used in the treatment of acute bronchial asthma.

### Group – C

3. Discuss the mechanism of action of (*any three*) : 3 x 3
- a) Promethazine is used in motion sickness
  - b) ACE inhibitors are used in heart failure.
  - c) Amyl nitrate in cyanide poisoning.
  - d) Tamsulosin in benign hypertrophy of prostate.

### Group -D

4. Write short notes on (*any four*) : 4 x 3
- a) Therapeutic drug monitoring
  - b) Apparent Volume of distribution
  - c) Drug dependence
  - d) Cetrizine
  - e) Amlodipine

## PHARMACOLOGY

2009

Second Paper

Full Marks 40

### Use Seperate answer script for each group

Attempt all questions. The figures in the margine indicate distribution of marks in each questions

#### Group – A

1. (a) Enumerate drugs used in the treatment of Diabetes Mellitus. Mention the indications of Insulin in type 2 Diabetes (NIDDM) Mellitus. What is Insulin resistance ? 5+3+2  
Or (b) Enumerate anti-amoebic drugs. Mention the indications and side effects of Metronidazole. 4+4+2

#### Group – B

2. Explain why (*any three*) : 3 x 3  
a) Rifampicin is used once in amonth supervised in the treatment of Leprosy  
b) Methadone is used in morphine withdrawal.  
c) Chloroquine is used in loading dose in the treatment of malaria.  
d) Oestrogen and progesteronr are combined together in oral contraceptive pills.

#### Group – C

3. Discuss the mechanism of action of (*any three*) : 3 x 3  
a) Propylthiouracil in hyperthyroidism.  
b) Indomethacin in acute gout.  
c) Amitryptiline in depression  
d) Ciprofloxacin in typhoid fever.

#### Group -D

4. Write short notes on (*any four*) : 4 x 3  
a) Azithromycin  
b) Carbamazepine.  
c) Topical glucocorticoids.  
d) Itraconazole.  
e) Methotrexate.

## PHARMACOLOGY

2010

Paper - I

Full Marks 40

### Use Seperate answer script for each group

Attempt all questions. The figures in the margine indicate distribution of marks in each questions

#### Group – A

1. (a) Enumerate the drugs used in the treatment of congestive cardiac failure. Discuss the adverse effects and current status of digoxin in the treatment of congestive cardiac failure. 4+3+3
- Or (b) Enumerate drugs for the treatment of bronchial asthma. Mention the mode of action of salbutamol and its common side effects. 3+4+3

#### Group – B

2. Explain why (*any three*) : 3 x 3
  - a) Phenoxybenzamine is used in the management of pheochromocytoma.
  - b) Sildenafil is not safe for patients on nitrate therapy.
  - c) Neostigmine is preferred over physostigmine in the treatment of myasthenia gravis.
  - d) Metoprolol is preferred over propranolol in hypertensive patients with diabetes mellitus.

#### Group – C

3. Discuss the mechanism of action of (*any three*) : 3 x 3
  - a) Nifedipine in the treatment of hypertension.
  - b) Warfarin as an oral anti-coagulant.
  - c) Verapamil in cardiac arrhythmia.
  - d) Dopamine in cardiogenic shock.

#### Group -D

4. Write short notes on (*any four*) : 4 x 3
  - a) Thrombolytic drugs.
  - b) Pharmacovigilance.
  - c) Pharmacogenetics.
  - d) Parenteral iron therapy.
  - e) Phase II metabolism of drugs

## PHARMACOLOGY

2010

Paper - II

Full Marks 40

### Use Seperate answer script for each group

Attempt all questions. The figures in the margine indicate distribution of marks in each questions

#### Group – A

1. (a) Enumerate drugs acting via benzodiazepine-GABA-A receptor complex channel. Discuss the therapeutic uses of benzodiazepines and the treatment of its overdose. 4+4+2
- Or (b) Enumerate drugs used for chloroquine resistant P. falciparum malaria. Describe drug treatment of uncomplicated falciparum malaria mentioning the dosage regimes and important adverse effects of drugs used. 2+5+3

#### Group – B

2. Explain why (*any three*) : 3 x 3
  - a) Cisapride has been withdrawn in some countries.
  - b) Long-term use of glucocorticoids is potentially hazardous.
  - c) Propofol is a popular i.v. Anaesthetic agents.
  - d) Azithromycin is considered superior to erythromycin.

#### Group – C

3. Discuss the mechanism of action of (*any three*) : 3 x 3
  - a) Combined oral contraceptive steroids
  - b) Acyclovir in the treatment of herpes viral infection.
  - c) Ondansetron as antiemetic agent.
  - d) Indomethacin for treatment of patent ductus arteriosus.

#### Group -D

4. Write short notes on (*any four*) : 4 x 3
  - a) Sodium valproate
  - b) dioactive iodine
  - c) Levodopa
  - d) Bisphosphonates
  - e) Therapeutic uses of fluroquinolones.

**Use Seperate answer script for each group**

*Attempt all questions. The figures in the margine indicate distribution of marks in each questions*

**Group – A**

1. (a) What is meant by bioavailability of drugs? What are the measures/indices of bioavailability? Mention the factors that influence oral bioavailability of drugs. How is the bioavailability of an orally administered drug assessed? 1+2+3+4
- Or (b) Name three drugs ( of different categories ) that act by modifying the renin-angiotensin-aldosterone system? Mention one indication for each and briefly outline the rationale for such use. Which one(s) of these three drugs do you think should be included in the national essential medicines list of India and Why ? 12+12+3+2+2

**Group – B**

2. Explain why (*any three*) : 3 x 3
- a) Intravenous dopamine infusion in cardiogenic shock should be closely monitored.
  - b) Folic acid supplementation is advocated in early pregnancy.
  - c) In pharmacotherapeutics, children are not viewed as miniature adults.
  - d) Pralidoxime is not used in carbamate poisoning.

**Group – C**

3. Outline the mechanism of action of (*any three*) : 3 x 3
- a) Low molecular weight heparine in deep vein thrombosis
  - b) Allopurinol in chronic gout.
  - c) Statins as hypolipidemic agents.
  - d) Antihistamines in motion sickness.

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Diagnostic uses of drugs.
  - b) Graded dose responses.
  - c) Leukotriene antagonistics.
  - d) Magnesium sulphate.
  - e) d-Penicillamine.



**Use Seperate answer script for each group**

*Attempt all questions. The figures in the margine indicate distribution of marks in each questions*

**Group – A**

1. (a) Enumerate drugs (analgesics or non-analgesics) used in the treatment of four different pain conditions. Briefly outline the mechanism of action in any one situation. Comment on the safety concerns associated with the use of NSAIDS. Enumerate opioid receptor antagonists and mention their uses. 4+2+2+2
- Or, (b) Classify the drugs used in the treatment of pulmonary tuberculosis. Explain why antituberculosis drugs are used in combination. Mention the commonly encountered adverse reactions of anti tuberculosis drugs. How would you treat a case of multi-drug resistant tuberculosis? 3+2+3+2

**Group – B**

2. Explain why (*any three*) : 3 x 3
- a) Oxytocin and methylergometrine both are routinely requisitioned in an obstetric care unit.
  - b) Patients of parkinson's disease on L-dopa therapy are cautioned not to indulge in self-medication with OTC multivitamin preparations.
  - c) Oral chloroquine therapy in malaria is started with a loading dose.
  - d) Probenecid is combined with penicillins.

**Group – C**

3. Briefly outline the mechanism of action of (*any three*) : 3 x 3
- a) Combined oral contraceptive pills
  - b) N-acetylcysteine in paracetamol poisoning.
  - c) Lactulose in hepatic encephalopathy.
  - d) Metformine in diabetes mellitus.

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Antibiotic-associated diarrhoea
  - b) Lithium carbonate
  - c) Chelating agents
  - d) Mebendazole
  - e) Chemoprophylaxis

# MBBS 2<sup>nd</sup> Professional Examination, 2012

## PHARMACOLOGY

### Paper – I

Time allowed : 2 Hours

Full Marks : 40

Use Seperate answer script for each group

*Attempt all questions.*

*The figures in the margine indicate distribution of marks in each questions*

#### Group – A

1. (a) What are the different routes of drug administration? What are the advantages and disadvantages of intravenous routes of drug administration? What is meant by "First-pass metabolism"? 4+2+2+2

Or

(b) An eight-year old boy arrives at the emergency ward with severe respiratory distress and wheezing. Outline the drug management that would provide relief to the boy ( with brief mechanism of such action and two common adverse effects for each drug ). What drugs would you prescribe to prevent future similar attacks?

#### Group – B

2. Explain why (*any three*) : 3 x 3
- a) In angina pectoris Isosorbide dinitrate is administered sublingually.
  - b) Folic acid alone should not be used in megaloblastic anaemia.
  - c) Adrenaline injection is given in anaphylactic shock.
  - d) Low dose aspirin is advised as prophylaxis after myocardial infarction.

#### Group – C

3. Discuss the mechanism of action of (*any three*) : 3 x 3
- a) Vitamine K as procoagulant
  - b) ACE inhibitors as antihypertensive.
  - c) Tamsulosin in benign hypertrophy of prostate.
  - d) Low molecular heparin in deep vein thrombosis.

#### Group -D

4. Write short notes on (*any four*) : 4 x 3
- a) Azithromycin
  - b) Furosemide.
  - c) Sodium chromoglycate
  - d) Drug treatment of glaucoma
  - e) Essential Drug

# MBBS 2<sup>nd</sup> Professional Examination, 2012

## PHARMACOLOGY

### Paper – II

Time allowed : 2 Hours

Full Marks : 40

Use Seperate answer script for each group

*Attempt all questions.*

*The figures in the margine indicate distribution of marks in each questions*

#### Group – A

1. (a) Describe the drug treatment of acute thyrotoxicosis. How do you prepare the patient for surgery? 6+4

Or

- (b) Enumerate antiepileptic drugs. Mention the mechanism of action and adverse effects of Phenytoin. 4+3+3

#### Group – B

2. Explain why (*any three*) : 3 x 3
- a) Metronidazole should not be advised to chronic alcoholic persons
  - b) Deoxycycline is preferred to other tetracyclines
  - c) Methadone is used in morphine withdrawal
  - d) Glucocorticoids should not be withdrawn suddenly after prolonged therapy

#### Group – C

3. Briefly outline the mechanism of action of (*any three*) : 3 x 3
- a) Domperidone as anti-emetic
  - b) Tamoxifen in breast carcinoma
  - c) Methotrexate in Rheumatoid Arthritis
  - d) Thiazids in the treatment of mild to moderate hypertension

#### Group -D

4. Write short notes on (*any four*) : 4 x 3
- a) Lignocaine
  - b) Albendazole
  - c) Uses of Carbamazepine
  - d) Ciprofloxacin
  - e) Rifampicin

# MBBS 2<sup>nd</sup> Professional Examination, 2013

## PHARMACOLOGY

### Paper – I

Time allowed : 2 Hours

Full Marks : 40

Use Seperate answer script for each group

*Attempt all questions.*

*The figures in the margine indicate distribution of marks in each questions*

#### Group – A

1. (a) Give an outline of ideal therapeutic regimen for a patient suffering from congestive cardiac failure. What are the possible cardiac toxic effects of digitalis therapy and what are the early indications of toxicity ? 7+2+1

Or

- (b) On the occasion of Hindu religious festival a group of men have consumed dhatura seeds. They were brought to a nearby hospital. Mention the signs and symptoms of this type of poisoning. Describe the pharmacological basis of treatment of the conditions. 4+6

#### Group – B

2. Explain why (*any three*) : 3 x 3
- a) Monteleukast is not used in acute attack bronchial asthma
  - b) Iron and folate supplementation are recommended routinely during pregnancy.
  - c) Low molecular weight heparine preparations are superior.
  - d) Adrenaline injection is given in anaphylactic shock.

#### Group – C

3. Briefly otline the mechanism of action of (*any three*) : 3 x 3
- a) Mosapride is prokinetic agent
  - b) GTN in angina pectoris
  - c) Olmesartan as antihypertensive agents
  - d) Cyanocobalamine as haematinic agent

#### Group -D

4. Write short notes on (*any four*) : 4 x 3
- a) Losartan
  - b) Therapeutic index
  - c) Enzyme induction
  - d) Physical retribution of drugs
  - e) Receptor antagonism

# MBBS 2<sup>nd</sup> Professional Examination, 2013

## PHARMACOLOGY

### Paper – II

Time allowed : 2 Hours

Full Marks : 40

Use Seperate answer script for each group

*Attempt all questions.*

*The figures in the margine indicate distribution of marks in each questions*

#### Group – A

1. (a) Describe the antiretroviral drugs. Discuss different regimens and underlying mechanisms recommended for the treatment of AIDS. 5+5
- Or
- (b) Give an outline of the drug treatment of acute Rheumatic fever. ( in both adults and children ). For prevention of recurrences of such cases. What drugs should you prescribe and how long the prophylactic treatment should continue? 7+2+1

#### Group – B

2. Explain why (*any three*) : 3 x 3
- a) Lugol's Iodine is used for preparation of thyrotoxicosis.
  - b) Clomiphene citrate is indicated in the treatment of infertility
  - c) Concomitant use of Rifampicin and oral contraceptives should better be avoided.
  - d) Levopoda is combined with carbipoda in treatment of parkinsonism

#### Group – C

3. Briefly outline the mechanism of action of (*any three*) : 3 x 3
- a) Corticosteroids as anti-inflammatory agent
  - b) Bisacodyl as purgative
  - c) DPP – 4 inhibitors in type II diabetes mellitus
  - d) Colchicine in acute gout

#### Group -D

4. Write short notes on (*any four*) : 4 x 3
- a) Ondansetron
  - b) Ketoconazole
  - c) Meropenem
  - d) Anabolic steroids
  - e) Glimepiride

**The West Bengal University of Health Sciences**  
**MBBS 2<sup>nd</sup> Professional Examination, 2014**

**Subject : Pharmacology**  
**Paper – I**

**Full Marks : 40**  
**Time : 2 hours**

**Use Seperate answer script for each group**

*Attempt all questions. The figures in the margine indicate full marks*

**Group – A**

1. (a) Outline the therapeutic regimen for a case of acute severe bronchial asthma. Enumerate the drugs used in the prophylactic therapy of bronchial asthma. Why is the inhalation therapy preferred over oral medication in bronchial asthma ? 6+2+2

Or

- (b) Enumerate drugs used in the treatment of acute congestive and chronic simpke glaucoma. Discuss the mechanism of action of Pilocarpine in wide and narrow angle glaucoma. How Timolol reduces intra-ocular pressure ? 4+4+2

**Group – B**

2. Explain why (*any three*) : 3 x 3
- a) Furosamide is used in acute left ventricular failure.
  - b) Desferrioxamine is used in iron poisoning.
  - c) Low dose aspirin is used as anti platelet agents.
  - d) Plasma concentration of some drugs need to be monitored therapeutically.

**Group – C**

3. Discuss the mechanism of action of (*any three*) : 3 x 3
- a) Atropine Sulphate as mydriatic and cycloplegic agent.
  - b) Thiazides as antihypertensive agent.
  - c) Temsulosin in benign hypertrophy of prostate.
  - d) Clopidogrel as anti platelet agent.

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Parital agonist and Inverse agonist
  - b) Drug Synergism
  - c) Pharmaco vigilance
  - d) First pass Metabolism
  - e) Essential drugs.

**The West Bengal University of Health Sciences**  
**MBBS 2<sup>nd</sup> Professional Examination, 2014**

**Subject : Pharmacology**  
**Paper – II**

**Full Marks : 40**  
**Time : 2 hours**

**Use Seperate answer script for each group**

*Attempt all questions. The figures in the margine indicate full marks*

**Group – A**

1. (a) Enumerate antiepileptic drugs. Discuss the mechanism of action of sodium valproate as an anticonvulsant. Outline the treatment strategy of status epilepticus. 4+3+3

Or

- (b) Enumerate oral antidiabetic drugs. Discuss the mechanism of action of biguanides. Outline the treatment of hyperosmolar diabetic coma. 3+2+5

**Group – B**

2. Explain why (*any three*) : 3 x 3
- a) Ciprofloxacin and theophylline should not be co-prescribed.
  - b) Gluco-corticoids should be tapered off gradually after long term therapy.
  - c) Metronidazole is to be avoided in chronic alcoholics.
  - d) Alphacalcidol is effective in renal rickets

**Group – C**

3. Discuss the mechanism of action of (*any three*) : 3 x 3
- a) Triptans in Migraine.
  - b) Fluconazole as antifungal agent
  - c) Prpyl thiouracil in hyperthyroidism
  - d) Pantoprazole in peptic ulcer

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Super infections.
  - b) Chloroquin
  - c) Methotrexate.
  - d) Emergency contraceptives.
  - e) Propafol

**The West Bengal University of Health Sciences**  
**MBBS 2<sup>nd</sup> Professional Examination, 2015**

**Subject : Pharmacology**  
**Paper – I**

**Full Marks : 40**  
**Time : 2 hours**

**Use Seperate answer script for each group**

*Attempt all questions. The figures in the margine indicate full marks*

**Group – A**

1. (a) Enumerate Anticholinergiv drugs and their side effects. Outline the management of a case of Organo-phosphorus poisoning. 3+3+4

Or

- (b) Enumerate the different group of drugs which are used in bronchhial asthma. How will you treat a case of status asthmaticus ? Name two drugs which may precipitate asthma and how ? 4+4+2

**Group – B**

2. Explain why (*any three*) : 3 x 3
- a) Adrenaline is the drug of choice in anaphylactic shock.
  - b) Alteplase is preferred over streptokinase in acute myocardial infarction.
  - c) Iron therapy is contraindicated in Thalassemia.
  - d) Frusemide is combined with Spironolactone as diuretic.

**Group – C**

3. Discuss the mechanism of action of (*any three*) : 3 x 3
- a) Low dose aspirin in acute myocardial infarction.
  - b) Glycopyrrholate in preanaesthetic medication.
  - c) Heparin as anticoagulant.
  - d) ACE Inhibitors induces cough.

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Plasma Protein binding of drugs
  - b) Amiodipine
  - c) Omeprazole
  - d) Essential and Orphan drugs.
  - e) Levo cetirizine.



**The West Bengal University of Health Sciences**  
**MBBS 2<sup>nd</sup> Professional Examination, 2015**

**Subject : Pharmacology**  
**Paper – II**

**Full Marks : 40**  
**Time : 2 hours**

**Use Seperate answer script for each group**

*Attempt all questions. The figures in the margine indicate full marks*

**Group – A**

1. (a) Enumerate the drugs used in treatment of malaria. Discuss briefly the drug treatment of chloroquine resistant uncomplicated falciparum malaria. Mention the therapeutic uses of chloroquine. 4+4+2

Or

- (b) Enumerate the drugs used for NIDDM. Briefly mention the mechanism of Insulin. Mention the therapeutic uses of Insulin. 4+4+2

**Group – B**

2. Explain why (*any three*) : 3 x 3
- a) Lugol's Iodine is given in pre operative preparation of thyroid surgery.
  - b) fixed dose combination is used in cotrimoxazole.
  - c) Multi drug therapy is used in tuberculosis.
  - d) Desferrioxamine is used in patient of thalassaemia.

**Group – C**

3. Discuss the mechanism of action of (*any three*) : 3 x 3
- a) Allopurinol in chronic gout.
  - b) Raloxifen in post menopausal osteoporosis.
  - c) Naloxane in morphine overdose.
  - d) Oxytocin for induction of labour

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Misoprostol
  - b) Lithium
  - c) Pre-anaesthetic medication
  - d) Interferons
  - e) Levodopa

**The West Bengal University of Health Sciences**  
**MBBS 2<sup>nd</sup> Professional Examination, 2016**

**Subject : Pharmacology**  
**Paper – I**

**Full Marks : 40**  
**Time : 2 hours**

*Attempt all questions. The figures in the margin indicate distribution of marks in each questions*

**Group – A**

1. (a) Enumerate drugs used in chronic heart failure. Mention the role of diuretics in heart failure.  
Outline the management of acute left ventricular failure. 4+2+4
- Or
- (b) Enumerate the drugs used in treatment of Glaucoma. Mention the reason of using each drug. 4+6

**Group – B**

2. Explain why (*any three*) : 3 x 3
- a) Vitamin K is used in treatment of warfarin overdose.
  - b) Beta Blockers are contraindicated in peripheral vascular diseases.
  - c) Dopamine is used in cardiogenic shock.
  - d) Intravenous route is the route of emergency.

**Group – C**

3. Write the mechanism of action of (*any three*) : 3 x 3
- a) Clopidogrel as anti platelet agent.
  - b) Transdermal drug delivery system.
  - c) Promethazine in motion sickness.
  - d) Sumatriptan in acute attack of Migraine.

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Plasma half life
  - b) Loading dose
  - c) Anti-snake venome
  - d) Low molecular weight heparin
  - e) Atropine sulphate is used in preanaesthetic medication

**The West Bengal University of Health Sciences**  
**MBBS 2<sup>nd</sup> Professional Examination, 2016**

**Subject : Pharmacology**  
**Paper – II**

**Full Marks : 40**  
**Time : 2 hours**

*Attempt all questions. The figures in the margin indicate distribution of marks in each questions*

**Group – A**

1. (a) Mention different insulin preparation. How will you manage a case of hypoglycaemic coma?

6+4

Or

(b) Enumerate commonly used glucocorticoids. Briefly describe the role of corticosteroids in Bronchial asthma. Mention the contraindication of corticosteroids. Name one glucocorticoid receptor antagonist with its use.

3+3+3+1

**Group – B**

2. Explain why (*any three*) :

3 x 3

- a) Carbidopa cannot be used as monotherapy in Parkinson's disease.
- b) Multi drug therapy in Leprosy.
- c) Metronidazole is combined with diloxanide Furoate in the treatment of intestinal amoebiasis.
- d) N acetyl Cysteine is used in Paracetamol poisoning

**Group – C**

3. Write the mechanism of action of (*any three*) :

3 x 3

- a) Itraconazole as anti fungal agent.
- b) Benzodiazepine as hypnotic.
- c) Clomiphene Citrate in both male and female infertility.
- d) Succinyl Choline as muscle relaxants.

**Group -D**

4. Write short notes on (*any four*) :

4 x 3

- a) Lamivudine
- b) Rifampicin
- c) HAART Therapy
- d) Amikacin
- e) Dissociative anaesthesia

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2017**

**Subject : Pharmacology**  
**Paper – I**

**Full Marks : 40**  
**Time : 2 hours**

*Attempt all questions. The figures in the margin indicate distribution of marks in each questions*

**Group – A**

1. (a) Enumerate the antihypertensive drugs. Outline the management of hypertensive emergency. Mention the side effect of ACE inhibitors. 4+4+2
- Or
- (b) Enumerate drugs used in Angina Pectoris. Outline the mechanism of action of nitrates. Outline the management of unstable angine. 4+4+2

**Group – B**

2. Explain why (*any three*) : 3 x 3
- a) Atropine sulphate is not used in acute congestive glaucoma.
  - b) Montelukast is not used in acute attack of bronchial asthma.
  - c) LMW heparin is superior to conventional heparin.
  - d) Adrenaline injection is used in anaphylactic shock.

**Group – C**

3. Write the mechanism of action of (*any three*) : 3 x 3
- a) Transdermal drug delivery system.
  - b) Pantoprazole in acid-peptic disease.
  - c) Levosulpiridine as prokinetic agent.
  - d) Pralidoxime is used in Organo phosphorus poisoning.

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Orphan drugs.
  - b) Essential drugs.
  - c) Clinical trials.
  - d) Furosemide.
  - e) Sodium Chromoglycate.

**The West Bengal University of Health Sciences**  
**M.B.B.S. 2<sup>nd</sup> Professional Examination, 2017**

**Subject : Pharmacology**  
**Paper – II**

**Full Marks : 40**  
**Time : 2 hours**

*Attempt all questions. The figures in the margin indicate distribution of marks in each questions*

**Group – A**

1. (a) Mention different Insulin preparations. How will you manage a case of hypoglycaemic coma? 6+4
- Or
- (b) Enumerate antiepileptic drugs. Mention the mechanism of action, therapeutic uses and adverse drug reactions of Phenytoin sodium. 4+2+2+2

**Group – B**

2. Explain why (*any three*) : 3 x 3
- a) Multi drug therapy in Leprosy.
  - b) Clomiphene citrate in both male and female infertility.
  - c) Combination therapy is usually beneficial over single drug therapy in malaria.
  - d) Morphine is used in Pulmonary Edema.

**Group – C**

3. Write the mechanism of action of (*any three*) : 3 x 3
- a) Prostaglandin analogous in glaucoma.
  - b) Aspirin is not used in children with viral infection.
  - c) Sumatriptan in acute attack of migraine.
  - d) Intraconazole as antifungal agent.

**Group -D**

4. Write short notes on (*any four*) : 4 x 3
- a) Lamivudine.
  - b) Dissociative Anaesthesia.
  - c)  $\beta$  Lactam Antibiotics.
  - d) Erythropoietin.
  - e) Metronidazole.