# KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH, BELAGAVI.

[ Declared as Deemed-to-be University u/s 3 &12B of the UGC Act, 1956 ]

**Accredited A$^{+}$ Grade by NAAC (3rd Cycle)** **Placed in 'A' Category by MoE (GoI)**

## MBBS PHASE – II
## DEGREE EXAMINATION – FEBRUARY 2025

**Time 3 Hours** **Max. Marks 100**

## MICROBIOLOGY
## PAPER – I

**Q.P. Code A011**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All the questions are compulsory.

**Question Number** **Marks**

1. M.C.Q. **20 X 1 = 20**

**LONG ESSAY QUESTIONS** **2 X 10 = 20**

2. A 40-year old man was given intravenous infusion of Diclofenac sodium following an orthopedic surgery. He initially complained of localized pain and burning sensation. 15 minutes later, he complained of dizziness & shortness of breath. He was shifted immediately to the ICU. On examination, pulse rate 120/min, respiratory rate 39 breaths/min, BP 68/46 mm Hg. He was drowsy and pale, but awakens to verbal commands. He had generalized urticarial rashes & no conjunctival edema. His lips and tongue are not swollen and his voice sounds normal. Lung examination showed mild wheezing with minimal retractions. (1+5+4)
   a) Name the type of hypersensitivity in this condition.
   b) Write the biological events leading to this condition.
   c) How to manage this condition?

3. Classify Nematodes based on the habitat. Describe the life cycle and laboratory diagnosis of Ascaris lumbricoides. (2+3+5)

**SHORT ESSAY QUESTIONS** **9 X 5 = 45**

4. A patient aged 35 years is on corticosteroid therapy. He developed chain of vesicular lesions on the girdle area and has painful excruciating neural pain. (1+4)
   a) Identify the clinical condition.
   b) Explain the pathogenesis with neat labeled diagram

5. Describe the laboratory diagnosis of Malaria.

6. Describe pathogenesis and laboratory diagnosis of Hepatic Amoebiasis.

7. Enumerate bacterial zoonotic diseases. Describe the clinical features of Anthrax

8. A 30 year old forest dweller developed sudden onset of fever, bleeding from the nose and other orifices. In the past few days monkey were found died in the same forest area. (1+2+2)
   a) What is the probable diagnosis?
   b) Enumerate the arboviral infections seen in India.
   c) Write the laboratory diagnosis of the above disease.

9. A 28 year old male patient is brought to casualty with symmetric flaccid paralysis and diplopia. He is known injection drug user (black tar heroin). An abscess was observed on his left hand. On examination he had decreased tendon reflexes. On history there is consumption of improperly canned beverages. (2+3)
   a) Identify the clinical condition.
   b) Write the laboratory diagnosis of this condition.

10. An agriculturist sustained injury while working in the fields. He noticed discharging tiny wound after few days. Later he noticed multiple discharging sinuses with some sand like material coming out. (2+3)
    a) Enumerate the fungi producing Mycetoma.
    b) Write the laboratory diagnosis of Madhura foot.

11. Describe the lesions seen in Molluscum contagiosum and write it's laboratory diagnosis

12. Write in detail about laboratory diagnosis of Leptospirosis.

**SHORT ANSWER QUESTIONS** **5 X 3 = 15**

13. What are Koch's Postulates?
14. Left over sample of the patient is taken for a research. Mention the breach and how to rectify it?
15. Enumerate the factors responsible for the antigenicity of a molecule.
16. Explain the Marack lattice hypothesis.
17. Describe O139 (Bengal strain).

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# MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course** | **MBBS Phase-II, February 2025** | **Max. Marks** | **20 Marks** |
| **Subject** | **Microbiology Paper-I, QP Code A011** | **Time** | **30 Minutes** |

**Instructions**

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. A 27-year-old woman had two miscarriages in past two years due to Rh incompatibility. This occurs due to complement-mediated lysis of fetal red blood cells. Which of the following is **NOT** true regarding complement system?
   (A) The classical pathway is antibody dependent
   (B) Endotoxin is a potent stimulator of the alternate pathway
   (C) Lectin pathway works independent of antibody
   (D) The membrane attack complex is formed by C3 convertase

2. Agar percentage required to prepare nutrient agar plate is
   (A) 0.06 (B) 0.0025
   (C) 0.005 (D) 0.02

3. Which of the following is **NOT** a virulence factor of Vibrio cholerae?
   (A) Cholera toxin (B) Zona occludens toxin
   (C) Accessory colonization factors (D) Bacterial endotoxin (LPS)

4. A 24 year-old cook in the hostel mess suffered from enteric fever 2 years back. The chronic carrier state in this patient can be diagnosed by
   (A) Vi agglutination test (B) Blood culture
   (C) Widal test (D) Urine culture

5. The following culture media are used for growing salmonella **EXCEPT**
   (A) Mannitol Salt (B) MacConkey
   (C) Deoxycholate citrate (D) Wilson Blair

6. Lysozyme is **NOT** found in which one of the following body fluids?
   (A) Tears (B) Saliva
   (C) CSF (D) Sweat

7. Which of the following fungi is **NOT** a mould?
   (A) Aspergillus fumigatus (B) Rhizopus
   (C) Cryptococcus neoformans (D) Absidia

8. A 25 year old male patient comes to OPD with complains of nausea, vomiting and diarrhea. He gives history of consumption of Chinese fried rice 6 hours prior to symptoms. The toxin produced by probable causative agent is
   (A) Preformed toxin (B) Neurotoxin
   (C) Cytotoxin (D) Enterotoxin

9. Antibody dependent enhancement is observed in
   (A) Dengue hemorrhagic fever (B) Japanese encephalitis
   (C) Yellow fever (D) Chikungunya fever

10. A 45-year-old farmer presented with a history of multiple swellings on his foot and seropurulent pus discharge from the sinuses. KOH preparation from the discharge revealed the presence of dark and pigmented fungal hyphae. **Most** likely agent is
    (A) Actinomadura (B) Streptomyces
    (C) Madurella mycetomatis (D) Nocardia

11. Nasal polyps are produced by
    (A) Rhinosporidium seeberi (B) Coxiella burnetti
    (C) Klebsiella rhinoscleromatis (D) Rhizopus species

12. Which of the following is **correct** regarding the alpha toxin produced by Clostridium perfringens?
    (A) It is lethal, dermonecrotic and hemolytic
    (B) It is lethal, dermonecrotic and non-hemolytic
    (C) It can be specifically neutralized by the antitoxin
    (D) All of the above

13. Banana -shaped gametocytes are seen in infection with
    (A) Plasmodium vivax (B) Plasmodium falciparum
    (C) Plasmodium malariae (D) Plasmodium ovale

14. A 25 year old ward boy gets needle prick during blood collection of Hepatitis B positive patient. The ward boy is completely vaccinated and has AntiHBs titers of <10mIU/Ml. What is the recommended post exposure prophylaxis (PEP)
    (A) No further treatment given (B) HBIG -2 doses at 1 month apart
    (C) Start second series of vaccination (3 doses) (D) Restart the complete vaccination (6 doses)

15. Hospital acquired infections are also known as
    (A) Iatrogenic infections (B) Primary infections
    (C) Idiopathic infections (D) Nosocomial infections

16. The filarial worm living in lymphatics is
    (A) Brugia malayi (B) Loa loa
    (C) Oncocerca volvulus (D) Wucheraria bancrofti

17. Cholangiocarcinoma is a complication of infection caused by
    (A) Entamoeba histolytic (B) Schistosomes
    (C) Clonorchis sinensis (D) Fasciola hepatica

18. Medusa head type of growth on nutrient agar is produced by
    (A) Bacillus cereus (B) Brucella melitensis
    (C) Bacillus anthracis (D) Bacillus stearothermophilus

19. ESKAPE pathogens include
    (A) Klebsiella pneumoniae (B) Proteus mirabilis
    (C) Enterobacter species (D) Staphylococcus aureus

20. Most **common** causative agent of CAUTI is
    (A) Escherichia coli (B) Acinatobacter species
    (C) Pseudomonas species (D) Klebseilla pneumonia

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# MBBS PHASE – II
# DEGREE EXAMINATION – FEBRUARY 2025

**Time 3 Hours** **Max. Marks 100**

## MICROBIOLOGY
## PAPER – II

**Q.P. Code A012**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All the questions are compulsory.

**Question Number**
**Marks**

1. M.C.Q. **20 X 1 = 20**

**LONG ESSAY QUESTIONS** **2 X 10 = 20**

2. A 25 year old male with a history of multiple sex partners is admitted with complaints of unexplained fever, weight loss, persistent diarrhoea and generalized lymphadenopathy for the past 1 month. (1+4+5)
   a) What is the probable clinical diagnosis?
   b) Describe the pathogenesis of this condition.
   c) Discuss the laboratory diagnosis of this condition.

3. Describe the pathogenesis of Rabies. Discuss the laboratory diagnosis and prophylaxis of Rabies. (4+3+3)

**SHORT ESSAY QUESTIONS** **9 X 5 = 45**

4. A 20 year old girl presents with neck stiffness and fever for the past two days. Her CSF reveals lymphocytic pleocytosis, normal glucose and elevated proteins. No organisms are seen on gram stain.
   a) What is the probable diagnosis?
   b) Enlist aetiology of viral meningitis.
   c) Describe the laboratory diagnosis of a case of aseptic meningitis.

5. Write in brief about MMR vaccine contents, the schedule and the route of administration.

6. A farmer comes with itchy creeping lesion on the leg. He also complains of dry cough. His differential blood count showed eosinophilia. Discuss the pathogenesis of the condition. Enumerate the helminthes causing this condition.

7. Describe the role of Mantoux test in diagnosing latent Tuberculosis

8. A 50 year old paraplegic male patient is catheterized in the Hospital since 7 days, following which he develops fever and suprapubic tenderness.
   a) Define CAUTI.
   b) How to collect the sample in suspected CAUTI and prevent this infection?

9. Discuss the clinical features and laboratory diagnosis of primary syphilis.

10. A 20 year old working as forest assistant in Shivamogga (Karnataka) forest department presented with flu like syndrome, with conjunctivitis and hemorrhagic signs and symptoms of encephalitis. Which are the organisms responsible for this condition and describe the laboratory diagnosis of this case? (1+4)

11. Discuss the pathogenesis and laboratory diagnosis of human plague.

12. Classify Rickettsial infections in relation to vector, diseases and causative agents.

**SHORT ANSWER QUESTIONS** **5 X 3 = 15**

13. What are opportunistic infections? Give **two** examples of opportunistic parasitic infection.

14. Enumerate the causative agents of viral encephalitis.

15. Discuss the barriers to the implementation of healthcare as a universal right.

16. List the Bacterial causes of UTI.

17. Classify Non- Tuberculous Mycobacteria (NMT).

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## MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course** | **MBBS Phase-II, February 2025** | **Max. Marks** | **20 Marks** |
| **Subject** | **Microbiology Paper-II, QP Code A012** | **Time** | **30 Minutes** |

### Instructions

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. Rabies is identified by
   (A) Guarneri bodies
   (B) Negri bodies
   (C) Cowdry A bodies
   (D) Paschen body

2. One-and-a-half-year-old non-vaccinated child presented with signs of meningitis, her CSF showed pleomorphic gram-negative bacilli. On blood agar, the organism showed enhanced growth in the presence of X and V factors. What is the likely organism associated with this case?
   (A) M. tuberculosis
   (B) E. coli
   (C) B. pertussis
   (D) H. influenzae

3. All of the following are examples of slow viral diseases **EXCEPT**
   (A) Eastern equine encephalitis
   (B) Subacute sclerosing panencephalitis (SSPE)
   (C) Progressive multifocal leucoencephalopathy (PML)
   (D) Subacute spongiform viral encephalopathies

4. A middle aged woman, a regular swimmer was admitted with diminished vision and neck stiffness. On examination she was found to have keratitis and meningitis. She gave the history of using semisoft contact lenses. Her CSF culture on axenic media showed microbial growth. Which organisms are commonly associated in such condition?
   (A) Streptococcus
   (B) Mycobacteria
   (C) Toxoplasma
   (D) Acanthamoeba

5. Mycobacterium tuberculosis is
   (A) Acid fast
   (B) Alcohol fast
   (C) Acid and alcohol fast
   (D) None of the above

6. Lancefield grouping of streptococci is based on
   (A) Protein antigen
   (B) Carbohydrate antigen
   (C) Capsular antigen
   (D) Teichoic acid antigen

7. Functional receptor for SARS-CoV 2 is
   (A) ACE 2
   (B) CD 26
   (C) Both A & B
   (D) CD 4

8. A 53-year-old woman presented with fever and chronic cough with hemoptysis for more than six months. She was treated for these symptoms by the local practitioner but it did not help. She gave a history of consuming improperly cooked crabs. Her sputum was negative for acid-fast bacilli but showed parasitic ova. What is the likely pathogen associated with this condition?
   (A) Giardia lamblia
   (B) Wuchreria bancrofti
   (C) Loa loa
   (D) Paragonimus westermani

9. Appearance of a Hard Chancre is characteristics of
   (A) Primary syphilis
   (B) Secondary Syphilis
   (C) Latent Syphilis
   (D) Tertiary Syphilis

10. Which of the following STD is preventable by vaccine
    (A) Herpes genitalis
    (B) HIV
    (C) Hepatitis B infection
    (D) Chancroid

11. Non-specific urethritis may be caused by
    (A) Chlamydia trachomatis
    (B) Niesseria gonorrhoeae
    (C) Escherichia coli
    (D) Staphylococcus aureus

12. A 24-year-old female presents with complaints of dysuria, vulvar irritation, and painful sexual intercourse for the past few weeks. Per speculum examination reveals an inflamed cervix with profuse vaginal discharge. Microscopy of vaginal discharge shows numerous pear-shaped motile organisms. What is the **most** likely causative agent?
    (A) Herpes simplex virus
    (B) Neisseria gonorrhoeae
    (C) Chlamydia trachomatis
    (D) Trichomonas vaginalis

13. Zoonotic infections are caused by
    (A) Yersinia pestis
    (B) Yersinia pseudotuberculosis
    (C) Yersinia enterocolitica
    (D) All of the above

14. Zoophilic dermatophytes includes all **EXCEPT**
    (A) Microsporum canis
    (B) Trichophyton verrucosum
    (C) Candida albicans
    (D) Trichophyton equinum

15. Acute brucellosis is also known as
    (A) Undulant fever
    (B) Q fever
    (C) Saddleback fever
    (D) Lassa fever

16. A 68 year old female, presented with chronic watery diarrhea. She was seropositive for HIV, her stool microscopy showed acid fast oocysts measuring 5 micron in diameter. What is the likely etiological agent?
    (A) Isospora belii
    (B) Cryptosporidium parvum
    (C) Entamoeba histolytica
    (D) Balantidium coli

17. The underlying immune abnormality causing opportunistic infection in multiple myeloma is
    (A) Hypergammaglobulinaemia
    (B) Hypernatremia
    (C) Hyperkalemia
    (D) Hypertension

18. Which of the following is **NOT** an ESKAPE pathogen
    (A) Enterococcus faecium
    (B) Staphylococcus aureus
    (C) Klebsiella pneumoniae
    (D) Proteus mirabilis

19. Kissing disease is associated with which one of the following infections?
    (A) HSV-2
    (B) CMV
    (C) EBV
    (D) HSV-1

20. Hand rub should **NOT** be used in which scenario?
    (A) Before touching patient
    (B) After touching patient
    (C) After touching patient's surrounding
    (D) Hands are visibly soiled

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## MBBS PHASE – II
## DEGREE EXAMINATION – FEBRUARY 2025

**Time: 3 Hours** **Max. Marks: 100**

## PATHOLOGY
## PAPER – I

**Q.P. Code: A009**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

**Question Number** **Marks**

1. M.C.Q. **20 X 1 = 20**

**LONG ESSAY QUESTIONS:** **2 X 10 = 20**

2. Define and classify Leukemias. Describe etiopathogenesis and laboratory findings in Acute Myeloid Leukemia. (3+3+4)

3. A 42-year-old male presents with fever, cough and difficulty in breathing since 2 days and was diagnosed to be having severe pneumonia. Complete Blood count showed; Hb =12.8g/dl. Total WBC count =18,580 cells/cumm, DC: N80%, L15%, E1%, M4%, Platelet count =1.70lakh cell/cumm. (2+6+2)
   a) What is the type of inflammatory response occurring in this case and justify?
   b) Describe the role of different chemical mediators in this kind of inflammatory response.
   c) Enlist the outcomes of this type of inflammatory response.

**SHORT ESSAY QUESTIONS:** **9 X 5 = 45**

4. A 66-year-old man complains of left-sided weakness and deterioration in his speech pattern since 6 hours. CT angiography revealed anterior cerebral artery thromboemboli. (1+2+2)
   a) If a brain biopsy from the area supplied by anterior cerebral artery is carried out in this person what type of necrosis will be seen in the microscopy?
   b) Draw a neat labeled microscopic diagram of the same.
   c) Enumerate other types of necrosis with **one** example of each.

5. Define Edema. Tabulate the differences between transudate and exudate. (1+4)

6. A 19 year old female has skin rash involving her face and scalp for past 9 months. On examination there are 0.5-1.5cm plaque with erythema and edema. Laboratory findings show an anti-ANA test positive at titer of 1:2560 in diffuse pattern and anti-double-stranded-DNA antibodies are absent. (1+1+3)
   a) What is the diagnosis?
   b) Define and describe pathogenesis of above findings.

7. A 3-year-old child is brought to the ophthalmology clinic by parents, who have noticed a white reflection in the child's left eye when light is directed on it. On examination, the ophthalmologist observes a large, white mass in the child's left retina. An ultrasound and MRI confirm the presence of a retinal tumor. (1+4)
   a) Which gene is responsible for this tumor?
   b) Describe the role of this gene in development of this condition.

8. A 9 month old infant was referred to the visiting Family Medicine Specialist by a nurse for failure to thrive because his net weight gain was unsatisfactory. Child had repeated bouts of diarrhoea for last 3 months. Child appeared emaciated, thin, pale, and frail. There was no edema. (1+4)
   a) What is the diagnosis?
   b) Discuss the pathogenesis of the above condition.

9. Describe Non-Immune transfusion reactions.

10. Define Neoplasia. Describe the mechanism of metastasis with a neat labeled diagram. (1+4)

11. Explain the pathogenesis and significance of granulomatous inflammation in infectious diseases.

12. Describe the pathogenesis and laboratory findings in beta Thalassemia.

**SHORT ANSWER QUESTIONS:** **5 X 3 = 15**

13. Describe Schilling's test.

14. Enumerate **three** paraneoplastic syndromes associated with lung tumors.

15. Enlist clinical features of Down's syndrome.

16. Enlist morphological patterns of inflammation.

17. Define Empathy. Give an example.

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# MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course:** | **MBBS Phase-II, February 2025** | **Max. Marks:** | **20 Marks** |
| **Subject :** | **Pathology Paper-I, QP Code: A009** | **Time:** | **30 Minutes** |

**Instructions:**
- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. A 9-year-old boy has developed prominent bruises on his extremities over the past week. Laboratory studies show hemoglobin, 13.8 g/dL; platelet count, 11,000/mm3; and WBC count, 7720/mm3. He had viral pneumonia 3 weeks ago. His condition improves with corticosteroid therapy. Which of the following abnormalities is **most** likely to cause his hemorrhagic diathesis?
   (A) Antiplatelet antibodies (B) Bone marrow aplasia
   (C) Vitamin C deficiency (D) Deficiency of a metalloproteinase

2. In which of the anti-coagulants blood is stored in blood banks?
   (A) EDTA (B) Sodium citrate
   (C) Citrate phosphate dextrose solution (D) Double oxalate

3. Which of the following is an end result of septic shock?
   (A) Endothelial activation (B) Insulin resistance
   (C) Immunosuppression (D) Multiorgan failure

4. Emigration of leucocyte from vessel was described by
   (A) Celcius (B) Cohnheim
   (C) John Hunter (D) Mechnikoff

5. A 40 year old male complains of pigmented nodular growth over left foot. Patient complains of loss of weight and appetite. Biopsy showed sheets of spindle shaped cells with nuclei showing prominent nucleoli. Cytoplasm showed abundant pigment. Which pigment is seen in the cytoplasm of these tumor cells?
   (A) Porphyrin (B) Hemosiderin
   (C) Lipofuscin (D) Melanin

6. Which of the following is a feature of postmortem clot?
   (A) Chicken fat (B) Lines of Zahn
   (C) Firm (D) Fixed to vessel wall

7. A 5-year-old boy presents with a mass in his right jaw. A biopsy of the mass reveals a high-grade tumor with a "starry-sky" appearance. Which oncogenic virus is associated with this condition?
   (A) EBV (B) HHV-8
   (C) HPV (D) HTLV-1

8. Which of the following causes delayed prolonged leakage from vessels due to direct injury to endothelium?
   (A) ROS (B) Thermal Injury
   (C) Young capillaries (D) Transcytosis

9. Which of the following is **NOT** an ultrastructural finding of reversible cell injury noted on electron microscopy?
   (A) Amorphous densities (B) Myelin figures
   (C) Cellular shrinkage (D) Detachment of polysomes

10. Which of the following diseases shows ringed sideroblasts?
(A) Iron deficiency anemia
(B) Myelodysplastic syndrome
(C) Thalassemia
(D) Anemia of chronic diseases

11. Which of the following event is caused by Histamine?
(A) Hypertension
(B) Tachycardia
(C) Vasoconstriction
(D) Vasodilation

12. In which organ Liquefactive necrosis occurs?
(A) Heart
(B) Brain
(C) Liver
(D) Kidney

13. What is the primary defect in Sickle cell anemia?
(A) An abnormality in the porphyrin part of hemoglobin
(B) Replacement of glutamate by valine in β chain of HbA
(C) A nonsense mutation in β chain of HbA
(D) Substitution of valine by glutamate in α chain of HbA

14. Wound contraction is mediated by
(A) Collagen
(B) Elastin
(C) Epithelial cells
(D) Myofibroblasts

15. Psamomma bodies are noted in all **EXCEPT**
(A) Meningioma
(B) Papillary carcinoma thyroid
(C) Gastric carcinoma stomach
(D) Serous carcinoma ovary

16. A 36 year married adult man came to infertility clinic with complaints of infertility since 10 years of married life. On examination, he is tall with abnormally long legs, lack of deep voice and male distribution of hair. Also he had small penis with atrophic testicles. What is the diagnosis?
(A) Down's syndrome
(B) Klinefelter's syndrome
(C) Patau's syndrome
(D) Turner's syndrome

17. Which is the most **common** complication occurring in Scleroderma?
(A) Hepatic failure
(B) Malignant hypertension
(C) Perforated duodenal ulcer
(D) Squamous cell carcinoma

18. Nephrotic syndrome has all the following features **EXCEPT**
(A) Massive proteinurea
(B) Hypercholesterolemia
(C) Edema
(D) Hypertension

19. A 36 year old male, presents to emergency ward with mental confusion, ataxia, abnormal ocular motility and polyneuropathy. Patient is a known case of chronic alcoholism. Which nutritional deficiency leads to development of above condition?
(A) Niacin
(B) Pyridoxine
(C) Riboflavin
(D) Thiamine

20. Popcorn cells are seen in which of the following Hodgkin's disease?
(A) Lymphocyte predominant
(B) Lymphocyte depleted
(C) Nodular sclerosis
(D) Mixed cellularity

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**Accredited A$^{+}$ Grade by NAAC (3$^{rd}$ Cycle)** **Placed in 'A' Category by MoE (GoI)**

## MBBS PHASE – II
## DEGREE EXAMINATION – FEBRUARY 2025

**Time: 3 Hours** **Max. Marks: 100**

## PATHOLOGY
## PAPER – I

**Q.P. Code: 1008**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

**Question Number** **Marks**

1. M.C.Q. **25 X 1 = 25**

**LONG ESSAY QUESTIONS:** **2 X 10 = 20**

2. An elderly male has per rectal bleeding. On examination shows koilonychia, hemoglobin 4.6mg/dl. What is the diagnosis? Enumerate the causes and discuss laboratory findings for the above case. (2+2+6)

3. Define Neoplasia. Describe in detail the different modes of metastasis. (2+8)

**SHORT ESSAY QUESTIONS:** **8 X 5 = 40**

4. Describe the physical and chemical nature of Amyloid. Name the special stains for Amyloid. (3+2)

5. Describe the gross and microscopic features of Tuberculoid Leprosy.

6. Describe the clinical features and chromosomal abnormalities of Turner's syndrome. (3+2)

7. Discuss the pathogenesis of disseminated intra vascular coagulation.

8. Discuss the tests for detection and causes of Proteinuria.

9. Discuss factors influencing wound healing.

10. Describe gross and microscopic features of Mature Teratoma.

11. Define Metaplasia. Describe the mechanism of metaplasia with examples.

**SHORT ANSWER QUESTIONS:** **5 X 3 = 15**

12. Enumerate any **six** autosomal dominant disorders.

13. Describe morphology of Megaloblast with the diagram.

14. List **three** uses of buffy coat.

15. Enumerate any **three** giant cells and mention disease conditions in which they occur.

16. Mention **six** tumour markers.

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# MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course:** | **MBBS Phase-II, February 2025** | **Max. Marks:** | **25 Marks** |
| **Subject :** | **Pathology Paper-I, QP Code: 1008** | **Time:** | **30 Minutes** |

**Instructions:**

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. Increase in number of cells leading to increase in size of organ is known as
   (A) Hyperplasia (B) Hypoplasia
   (C) Hypertrophy (D) Anaplasia

2. Apoptosis is inhibited by
   (A) P-53 gene (B) N-myc gene
   (C) Ras gene (D) BCl2 gene

3. Edema due to reduced plasma oncotic pressure is seen in
   (A) Congestive heart failure (B) Protein losing glomerulopathy
   (C) Neurohumoral dysregulation (D) Post irradiation

4. The aberration in Philadelphia chromosome is
   (A) t (8:21) (B) t (9:22)
   (C) t (15:17) (D) t (14:14)

5. Reed Sternberg cells are characteristically seen in
   (A) Hodgkin's Lymphoma (B) Non-Hodgkin's Lymphoma
   (C) Multiple Myeloma (D) Chronic nonspecific lymphadenitis

6. Pernicious anaemia is
   (A) Genetic disorder (B) Hypersensitivity reaction
   (C) Neoplastic disorder (D) Autoimmune disorder

7. In sickle cell anaemia there is
   (A) Substitution of glutamine for valine (B) Substitution of valine for glutamine
   (C) Substitution of alanine for glutamic acid (D) Substitution of aspartate for valine

8. Autosplenectomy occurs in
   (A) G6PD deficiency (B) Hereditary spherocytosis
   (C) Sickle cell Anaemia (D) Thalassemia

9. ABO blood group was first described by
   (A) Landsteiner (B) Lorries
   (C) Mack (D) Smith

10. Presence of tad-pole cells in cervical smear indicates
    (A) Carcinoma Cervix (B) Dysplasia
    (C) Trichomonas Vaginalis infection (D) Human Papilloma Virus Infection

11. Which enzyme rises earliest in Myocardial infarction?
    (A) Creatine Kinase (B) LDH1
    (C) LDH2 (D) SGOT

12. Which of the following features differentiates invasive carcinoma from carcinoma in situ?
    (A) Anaplasia (B) Number of mitoses
    (C) Basement membrane invasion (D) Pleomorphism

13. Carcinomas metastasize most **commonly** due to spread via
(A) Transcoelomic pathway
(B) Haematogenous route
(C) Lymphatic route
(D) None of the above

14. The following gene is referred to as the Guardian of the genome
(A) p53
(B) RB gene
(C) APC gene
(D) PTEN

15. A 15 year old boy came to OPD with swelling of knee joint after a fall. Family history revealed that his maternal uncle also suffered from similar complaints. The boy is suffering from
(A) Haemophilia
(B) Thrombocytopenic purpura
(C) Von Willebrand disease
(D) Hereditary haemorrhagic telengiectasia

16. Ghon's complex is pathognomonic of
(A) Progressive primary tuberculosis
(B) Miliary tuberculosis
(C) Primary tuberculosis
(D) Secondary tuberculosis

17. Infarct occurring in following organ is invariably haemorrhagic
(A) Liver
(B) Lung
(C) Kidney
(D) Spleen

18. Rodent ulcer is another name for
(A) Adenocanthoma
(B) Basal cell Carcinoma
(C) Malignant melanoma
(D) Squamous cell Carcinoma

19. Iron deficiency anaemia can occur due to infection by
(A) Cysticercus cellulose
(B) Ankylostoma duodenale
(C) Enterobius vermicularis
(D) Taenia solium

20. Which of the following is **NOT** seen in Megaloblastic Anaemia?
(A) Hypersegmented Neutrophil
(B) MCV <80
(C) Evidences of dyserythropoiesis
(D) Giant metamyelocytes

21. G-6PD deficiency is protective against
(A) Plasmodium Vivax
(B) Plasmodium Falciparum
(C) Plasmodium Ovale
(D) Plasmodium Malariae

22. Raised Reticulocyte count is **most** characteristic of
(A) Iron deficiency Anaemia
(B) Megaloblastic Anaemia
(C) Hemolytic Anaemia
(D) Aplastic Anaemia

23. Disseminated intravascular coagulation is **common** in
(A) AML-M1
(B) AML- M3
(C) AML- M5
(D) AMl- M7

24. Platelet abnormality results in abnormal values of
(A) Bleeding time
(B) Clotting time
(C) Prothrombin time
(D) Partial Thromboplastin time

25. Acute Promyelocytic Leukemia - M3 is characterized by
(A) Reciprocal and balanced t(15;17) translocation
(B) Reciprocal t(9;22) translocation
(C) Reciprocal t(4;11) translocation
(D) Abnormalities of Chromosome 14

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# MBBS PHASE – II

## DEGREE EXAMINATION – FEBRUARY 2025

**Time 3 Hours** **Max. Marks 100**

## PATHOLOGY
## PAPER – II

**Q.P. Code A010**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All the questions are compulsory.

**Question Number**
**Marks**

1. M.C.Q. **20 X 1 = 20**

**LONG ESSAY QUESTIONS** **2 X 10 = 20**

2. A 34-year-old man suddenly develops severe dyspnea with wheezing and is taken to the emergency department. On physical examination, his vital signs are as follows: temperature- 37°C; pulse - 95/min; respiratory rate- 15/min; and blood pressure - 130/80 mm Hg. A sputum cytologic specimen shows Charcot-Leyden crystals and a background of abundant mucus. A clinical diagnosis of Asthma was given. (2+8)
   a) Enumerate the different types of asthma
   b) Discuss the etiopathogenesis with a neat labeled diagram.

3. Classify Diabetes Mellitus. Discuss the pathogenesis of type 2 diabetes. Describe the kidney changes in diabetes. (2+4+4)

**SHORT ESSAY QUESTIONS** **9 X 5 = 45**

4. Autopsy of a 45 year old showed yellowish white plaques over luminal surface of aorta. (1+4)
   a) What is the probable diagnosis?
   b) Enumerate the risk factors and complications of the above condition.

5. Describe etiopathogenesis of Benign prostatic hyperplasia.

6. Describe the gross and microscopy of osteoclastoma.

7. A 37 year-old male presents with epigastric pain and nausea that worsens at night and gets relieved by eating. (1+4)
   a) What is the probable diagnosis?
   b) Discuss the gross and microscopy of above condition.

8. Enumerate the antibodies of hepatitis B infection and their clinical correlation.

9. A 22 year female presented with lump in the breast, which is freely mobile and non-tender. (1+2+2)
   a) What is the probable diagnosis?
   b) Write the gross and microscopic appearance of this lesion.

10. Discuss the pathogenesis of carcinoma of cervix.

11. A 40 year male with previous history of fever with evening rise of temperature, night sweats, loss of weight and appetite, presented with headache, vomiting and neck stiffness. (1+4)
    a) What is the probable diagnosis?
    b) What are the investigations for this condition?

12. Describe the gross and microscopic features of Rodent ulcer.

**SHORT ANSWER QUESTIONS** **5 X 3 = 15**

13. List the microscopic types of Renal cell carcinoma.
14. List **three** clinical features of hyperthyroidism.
15. Enumerate **three** causes of Subarachnoid haemorrhage.
16. Enumerate the complications of Lobar Pneumonia.
17. Enumerate the individuals who have the right to make decisions for a person who cannot determine for self.

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# MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course** | **MBBS Phase-II, February 2025** | **Max. Marks** | **20 Marks** |
| **Subject** | **Pathology Paper-II, QP Code A010** | **Time** | **30 Minutes** |

**Instructions**

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. Pan-Acinar emphysema is more **common** in
   (A) Alpha-1 antitrypsin deficiency (B) Coal miners
   (C) Foreign body obstruction (D) Smokers

2. A 64-year-old male presents with recurrent chest pain, which goes away after a couple of minutes if he stops and rests. What is the probable diagnosis?
   (A) Stable angina (B) Unstable angina
   (C) Atypical angina (D) Myocardial infarction

3. An 18-year old woman presents with colicky abdominal pain localized to the right lower quadrant, vomiting and mild fever. McBurney point tenderness is present. The appendix in this case shows
   (A) A yellow tumor nodule at the tip of the appendix (B) Neutrophils within the muscular wall
   (C) Lymphoid hyperplasia and multinucleated giant cells within muscular wall (D) A dilated lumen filled with mucus

4. One of the following is a Germ cell tumour
   (A) Leydig cell tumor (B) Sertoli cell tumour
   (C) Granulosa cell tumour (D) Embryonal carcinoma

5. A 45 year old chronic alcoholic male presents with jaundice, pain abdomen and ascites. This patient's liver shows which of the following histopathological feature?
   (A) Mallory Denk bodies (B) Biliary ductular reaction
   (C) Kupffer cell hyperplasia (D) Acanthosis nigricans

6. Ewing's sarcoma arises in
   (A) Metaphysis (B) Diaphysis
   (C) Epiphysis (D) Marrow cavity

7. The most **common** site of gastric carcinoma is
   (A) Cardia (B) Body
   (C) Fundus (D) Antrum and pylorus

8. A 25-year-old pregnant woman presents with uterine bleeding and passage of vesicles. No fetal parts are found. What is the probable diagnosis?
   (A) Partial hydatidiform mole (B) Complete hydatidiform mole
   (C) Invasive mole (D) Placental site trophoblastic tumor

9. Which is the precancerous condition of the skin?
   (A) Leukoplakia (B) Psoriasis
   (C) Leprosy (D) Seborrhic keratosis

10. Most **common** type of breast carcinoma occurring bilaterally is
    (A) Lobular carcinoma (B) Intraductal carcinoma
    (C) Scirrhous carcinoma (D) Comedo carcinoma

11. Mc Callum's patch is seen in
    (A) Rheumatoid arthritis
    (B) Rheumatic fever
    (C) Systemic Lupus Erythematosus
    (D) Polyarteritis nodosa

12. Heart failure cells are seen in
    (A) Heart
    (B) Liver
    (C) Spleen
    (D) Lung

13. Pheochromocytoma is a tumour of
    (A) Adrenal medulla
    (B) Thyroid
    (C) Parathyroid
    (D) Pituitary gland

14. Psuedomyxoma peritonei is a complication of which ovarian tumour?
    (A) Mucinous tumour
    (B) Serous tumor
    (C) Brenner tumour
    (D) Dysgerminoma

15. A 10 year old male presented with reduced volume of urine and mild edema. The urine was red and smoky. On examination- BP - 134 / 100 mmHg. What is the probable diagnosis?
    (A) Nephritic syndrome
    (B) Acute pyelonephritis
    (C) Nephrotic syndrome
    (D) Chronic pyelonephritis

16. Which of the following is the primary hormone implicated in Benign Prostatic Hyperplasia?
    (A) Estrogen
    (B) Dihydrotestosterone
    (C) Progesterone
    (D) Cortisol

17. Dane particle is the other name for
    (A) Hepatitis A virus
    (B) Hepatitis B virus
    (C) Hepatitis C virus
    (D) Hepatitis D virus

18. A 15 year old male presented with projectile vomiting and neck rigidity. CSF showed turbidity with neutrophils. What is the probable diagnosis?
    (A) Viral meningitis
    (B) Bacterial meningitis
    (C) Tuberculous meningitis
    (D) Fungal meningitis

19. Kimmelstien-Wilson nodule is diagnostic of
    (A) Diabetic glomerulosclerosis
    (B) Malignant hypertension
    (C) Amyloid kidney
    (D) Benign nephrosclerosis

20. Thyroid tumor associated with MEN syndrome is
    (A) Papillary carcinoma
    (B) Follicular carcinoma
    (C) Medullary carcinoma
    (D) Anaplastic carcinoma

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# MBBS PHASE – II
# DEGREE EXAMINATION – FEBRUARY 2025

**Time 3 Hours** **Max. Marks 100**

## PATHOLOGY
## PAPER – II

**Q.P. Code 1009**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

**Question Number** **Marks**

1. M.C.Q. **25 X 1 = 25**

**LONG ESSAY QUESTIONS** **2 X 10 = 20**

2. Define peptic Ulcer. Describe the pathogenesis and morphology of peptic ulcer. (2+4+4)
3. Describe the aetio-pathogenesis, gross and microscopy of chronic pyelonephritis. (2+4+4)

**SHORT ESSAY QUESTIONS** **8 X 5 = 40**

4. Enumerate the differences between ulcerative colitis and Crohn's diseases.
5. Define Emphysema and explain the aetiopathogenesis of the same. (1+4)
6. Discuss the sites, gross & microscopy of Squamous cell carcinoma. (1+2+2)
7. Discuss types and morphology of Reed Sternberg cell.
8. Discuss the enzyme changes in Myocardial Infarction.
9. Describe gross and microscopy of Fibroadenoma of breast.
10. Classify Bone tumours.
11. Enumerate the antibodies of Hepatitis B infection and their clinical correlation.

**SHORT ANSWER QUESTIONS** **5 X 3 = 15**

12. Describe the components of Ghon's complex.
13. Classify Germ cell tumours of the ovary.
14. Describe the morphology of vegetations in Infective Endocarditis.
15. Enumerate the CSF findings in Viral Meningitis.
16. Enumerate different types of gall stones.

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# MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course** | **MBBS Phase-II, February 2025** | **Max. Marks** | **25 Marks** |
| **Subject** | **Pathology Paper-II, QP Code 1009** | **Time** | **30 Minutes** |

## Instructions

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. Most **common** cause of right ventricular failure is
   (A) Aortic Stenosis (B) Pulmonary stenosis
   (C) Tricuspid stenosis (D) Mitral Stenosis

2. **Commonest** cause of cor pulmonale is
   (A) COPD (B) Pulmonary embolism
   (C) Polyarteritis nodosa (D) Wegener's granulomatosis

3. Oxidant - antioxidants imbalance in emphysema is caused by
   (A) CD8 + T cells (B) Neutrophils
   (C) Smoking (D) Respiratory alkalosis

4. Status asthamaticus is associated with
   (A) Commences in children (B) No allergen implicated
   (C) Prolonged attack with severe respiratory distress (D) Type IV hypersensitivity reaction

5. In Mallory Weiss Syndrome the site of tear is
   (A) Distal Oesophagus (B) Proximal stomach
   (C) Oesophago gastric junction (D) All of the above

6. The earliest lesion in Crohn's disease is
   (A) Neutrophils infiltrating crypt (B) Crypt abscess
   (C) Focal neutrophilic infilteration in epithelial layer (D) Linear ulceration

7. Aflatoxin B1 produced by fungus Aspergillus flavus has a role to play in the pathogenesis of
   (A) Hepatocellular carcinoma (B) Renal cell carcinoma
   (C) Gastric carcinoma (D) Carcinoma of urinary bladder

8. The **commonest** cause for liver cirrhosis is
   (A) Viral Hepatitis (B) Alcoholic liver disease
   (C) Biliary disease (D) Wilson's disease

9. Elevation of serum amylase is seen in
   (A) Acute Gastritis (B) Acute Pancreatitis
   (C) Acute Cholecystitis (D) Acute Hepatitis

10. In **most** cases of Non obstructive chronic pyelonephritis, the bacteria reach the kidney via
    (A) Blood Stream (B) Lymphatics
    (C) Aberrant arteriovenous shunts (D) Vesicoureteral reflux

11. Necrotizing papillitis is seen in all of the following **EXCEPT**
    (A) Acute glomerulonephritis (B) Analgesic nephropathy
    (C) Diabetes Mellitus (D) Sickle cell disease

12. The **commonest** testicular tumour is
    (A) Leydig cell tumour (B) Sertoli cell tumour
    (C) Granulosa cell tumour (D) Germ cell tumour

13. Endometrial cancer is most **common** in the following age group
    (A) Reproductive
    (B) Adolescence
    (C) Postmenopausal
    (D) Prepubertal

14. Symptoms of endometriosis include
    (A) Infertility
    (B) Pelvic pain
    (C) Severe dysmenorrhoea
    (D) All of the above

15. Medullary carcinoma of thyroid arises from
    (A) Follicular cells
    (B) C- Cells of thyroid
    (C) Parathyroid cells
    (D) Primitive pleuripotential cells in thyroid

16. Complications of diabetes include all **EXCEPT**
    (A) Neuropathy
    (B) Nephropathy
    (C) Retinopathy
    (D) Myopathy

17. Which is the precancerous condition of the skin?
    (A) Erythroplakia
    (B) Psoriasis
    (C) Leprosy
    (D) Seborrhic keratosis

18. Ewing's sarcoma arises in
    (A) Metaphysis
    (B) Diaphysis
    (C) Epiphysis
    (D) Marrow cavity

19. Gout is characterized by deposition of crystals of
    (A) Cysteine crystals
    (B) Urate crystals
    (C) Pyrophosphate crystals
    (D) Hydroxyapatite crystals

20. Negri bodies are usually seen in
    (A) Cortex
    (B) Hippocampus
    (C) Midbrain
    (D) Hypothalamus

21. Signet ring malignant cells are found in
    (A) Diffuse gastric carcinoma
    (B) Intestinal type
    (C) Polypoid tumour
    (D) Expanding growth

22. Heart failure cells are seen in
    (A) Heart
    (B) Liver
    (C) Spleen
    (D) Lung

23. Squamous cell carcinoma of cervix is associated with
    (A) HPV 6, 11
    (B) HPV 16, 18
    (C) HPV 17, 19
    (D) HPV 20, 22

24. Most **common** type of Breast carcinoma occurring bilaterally is
    (A) Lobular carcinoma
    (B) Intraductal carcinoma
    (C) Scirrhous carcinoma
    (D) Comedo carcinoma

25. Classical type RS cells are predominantly seen in
    (A) Nodular sclerosis
    (B) Mixed cellularity
    (C) Lymphocyte predominant
    (D) Lymphocyte depleted

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# MBBS PHASE – II
# DEGREE EXAMINATION – FEBRUARY 2025

**Time 3 Hours** **Max. Marks 100**

## PHARMACOLOGY
## PAPER – I

**Q.P. Code A007**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

**Question Number** **Marks**

1. M.C.Q. **20 X 1 = 20**

**LONG ESSAY QUESTIONS** **2 X 10 = 20**

2. A 6-year-old boy presents to the neurology OPD with his parents giving the history of the boy having multiple episodes each day of a staring blank expression on the face with periodic blinking of the eyes during such episodes. Each episode lasts for about one minute. On examination all systems are normal. His EEG reveals a 3/second spike and wave pattern. (2+4+4)
   a. Mention **four** drugs which are effective in absence seizures.
   b. Mention the general principles to be followed in the drug treatment of epilepsy.
   c. Discuss the pharmacology of first line drugs used in treatment of absence seizure.

3. Classify drugs used in Heart failure. Discuss mechanism of action, uses and adverse effects of Digoxin. (4+6)

**SHORT ESSAY QUESTIONS** **9 X 5 = 45**

4. Explain the clinical consequences of plasma protein binding.

5. Define Adverse Drug Reaction. Discuss the salient features of pharmacovigilance programme in India. (1+4)

6. A 60 year old male patient came to the surgery department with the history of frequent urinary retention, voiding symptoms like narrowing of stream, dribbling and hesitancy since 6 months. On local examination he was found to have bulge on suprapubic area. What is the probable diagnosis? Explain the drug management for the same. (1+4)

7. Enlist the clinical features and discuss the management of organophosphorus poisoning. (1+4)

8. A 20-year-old boy is brought to the psychiatry OPD. He complains of constantly hearing voices without any source for six months. He also complains that his family members are plotting to kill him by poisoning his food. His parents say that the boy is very agitated because of the above complaints and because of his suspicious nature. On examination his general and systemic examination are normal. His routine investigations are normal. A diagnosis of Schizophrenia is made (3+2)
   a. Classify the drugs used in the treatment of Schizophrenia.
   b. Discuss any **two** extrapyramidal syndromes induced by typical antipsychotics.

9. Enumerate different types of shock. Discuss the management of hypovolemic shock. (1+4)

10. A 56-year-old woman was brought to the operation theatre for planned cystoscopy. An I.V. bolus dose of 2.5% Thiopentone Sodium was administered, following which there was loss of consciousness within 10-15 sec. Before the consultant could complete the procedure, the patient regained consciousness in just a few minutes. (3+2)
a) Explain the reason as to why patient regained consciousness so quickly.
b) Classify intravenous anaesthetics.

11. Classify Hypolipidaemic agents. Write mechanism of action and uses of Statins. (2+3)

12. A 30-year-old woman presented to her family physician complaining of black, tarry stools. The woman had a prosthetic valve replacement 4 months earlier for severe aortic stenosis secondary to rheumatic disease and was prescribed daily oral anticoagulant therapy. Enumerate oral anticoagulants. Write the mechanism of action and their uses. (1+4)

**SHORT ANSWER QUESTIONS** **5 X 3 = 15**

13. Define Tachyphylaxis and give **two** examples.

14. Mention the rationale for the use of Propranolol in thyrotoxicosis.

15. Name **three** antiplatelet agents and their **three** uses.

16. What is Empathy? What is the role of empathy in the care of patients?

17. List **two** drugs used in the treatment of Diabetes Insipidus and explain mechanism of action of any **one** drug.

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# MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course** | **MBBS Phase-II, February 2025** | **Max. Marks** | **20 Marks** |
| **Subject** | **Pharmacology Paper-I, QP Code A007** | **Time** | **30 Minutes** |

## Instructions

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. Majority of drugs cross biological membranes primarily by
   (A) Passive diffusion (B) Facilitated diffusion
   (C) Active transport (D) Pinocytosis

2. High plasma protein binding
   (A) Increases volume of distribution of the drug (B) Facilitates glomerular filtration of the drug
   (C) Minimises drug interactions (D) Generally makes the drug long acting

3. Pharmacogenetics is a study of
   (A) Gene therapy (B) Recombinant DNA technology
   (C) Genetic basis for variability in drug response (D) Carcinogenic effect of drug

4. Microsomal enzyme induction has **one** of the following features
   (A) Takes about one week to develop (B) Results in increased affinity of the enzyme for the substrate
   (C) It is irreversible (D) Can be used to treat acute drug poisonings

5. A 28 year old farmer is found convulsing in the farm. Heart rate is 100/min and blood pressure is 180/110 mm Hg. Diarrhea, sweating, lacrimation and urination are apparent. Pupils are pin point. Drug poisoning is suspected. Most probable cause is
   (A) Acetaminophen overdose (B) Morphine toxicity
   (C) Organophosphate poisoning (D) Atropine poisoning

6. Esmolol has the following features, **EXCEPT**
   (A) Blockade rapidly developing, short lasting β adrenergic (B) Cardioselectivity of action
   (C) Intrinsic sympathomimetic activity (D) Suitability for intraoperative use

7. Eutectic lignocaine-prilocaine has the following unique property
   (A) It causes motor blockade without sensory block (B) By surface application, it can anaesthetise unbroken skin
   (C) It is not absorbed after surface application (D) It has strong vasoconstrictor action

8. Which of the following is a skeletal muscle relaxant that acts as a central α2 adrenergic agonist?
   (A) Baclofen (B) Diazepam
   (C) Thiocochicoside (D) Tizanidine

9. A 30 year old manic patient was prescribed Haloperidol a week ago. For past 2 days, he has become restless, keeps pacing in the room and has been diagnosed to be having Haloperidol induced akathisia. Drug of choice to treat this condition is
   (A) Haloperidol in increased doses (B) Clonazepam
   (C) Carnitine (D) Propranolol

10. Gabapentin acts
    (A) As GABA agonist
    (B) As precursor of GABA
    (C) By enhancing GABA release
    (D) By GABA independent mechanism

11. Carbidopa when combined with Levodopa
    (A) Increases dose requirement of Levodopa
    (B) Decreases effectiveness of Levodopa
    (C) Increases peripheral decarboxylation of Levodopa
    (D) Decreases peripheral adverse effects of Levodopa

12. Second gas effect is exerted by the following gas when coadministered with halothane
    (A) Nitrous oxide
    (B) Cyclopropane
    (C) Nitrogen
    (D) Helium

13. A 45 year old executive treated for hypertension with a Beta blocker may report with
    (A) Palpitation
    (B) Diarrhoea
    (C) Difficulty in micturition
    (D) Cold extremities

14. A patient has an episode of hematemesis following streptokinase infused for the treatment of deep vein thrombosis. Which of the following drugs would be **most** effective in controlling the bleeding episode?
    (A) Vitamin K
    (B) Noradrenaline
    (C) Epsilon aminocaproic acid
    (D) Rutin

15. Ventricular remodeling after myocardial infarction involves the mediation of
    (A) Angiotensin II
    (B) Prostaglandin
    (C) Bradykinin
    (D) Thromboxane A2

16. Nitrates are used for all of the following conditions, **EXCEPT**
    (A) Congestive heart failure
    (B) Cyanide poisoning
    (C) Esophageal spasm
    (D) Atrial fibrillation

17. In pernicious anaemia vitamin $B_{12}$ is injected for
    (A) One week
    (B) One month
    (C) One year
    (D) Life long

18. Filgrastim is a
    (A) Granulocyte-colony stimulating factor
    (B) Granulocyte-monocyte-colony stimulating factor
    (C) GnRH analogue
    (D) T-cell stimulating factor

19. A 50-year-old man has a history of frequent episodes of renal colic with high Calcium renal stones. The **most** useful diuretic in the treatment of recurrent Calcium stones is
    (A) Spironolactone
    (B) Furosemide
    (C) Hydrochlorthiazide
    (D) Acetazolamide

20. A 46-year-old male, presented to the emergency with muscle weakness and cramping. He has been taking hydrochlorothiazide for recently diagnosed hypertension. Which of the following is the **most** likely cause of his symptoms?
    (A) Hyponatremia
    (B) Hypocalcemia
    (C) Hypoglycemia
    (D) Hypokalemia

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**KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH, BELAGAVI.**
[ Declared as Deemed-to-be University u/s 3 & 12B of the UGC Act, 1956 ]
**Accredited A+ Grade by NAAC (3rd Cycle)** **Placed in 'A' Category by MoE (GoI)**

# MBBS PHASE – II
# DEGREE EXAMINATION – FEBRUARY 2025

**Time 3 Hours** **Max. Marks 100**

## PHARMACOLOGY
## PAPER – I

**Q.P. Code 1006**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

**Question Number** **Marks**

1. M.C.Q. **25 X 1 = 25**

**LONG ESSAY QUESTIONS** **2 X 10 = 20**

2. Classify Anticholinergics. Write their uses and adverse effects. Add a note on the management of their poisoning. (2+6+2)
3. Classify Opioid analgesics. Write the uses and contraindications of opioid analgesics. Add a note on Naloxone. (2+6+2)

**SHORT ESSAY QUESTIONS** **8 X 5 = 40**

4. Discuss the transdermal therapeutic system with suitable examples
5. Mention cardio-selective blockers. Explain their benefits over non-selective blockers.
6. Enumerate centrally acting skeletal muscle relaxants. Discuss their uses and adverse effects.
7. Define preanaesthetic medication. Discuss its aims and various classes of drugs used with rationale.
8. Discuss the adverse effects of Levodopa therapy. Write the rationale for combining Levodopa with Carbidopa.
9. Discuss mechanism of action, uses and adverse effects of Nitrates.
10. Discuss mechanism of action, uses and adverse effects of oral anticoagulants.
11. Enumerate oral Iron formulations. Explain the adverse effects and precautions to be taken while administering Iron orally.

**SHORT ANSWER QUESTIONS** **5 X 3 = 15**

12. Name **three** drugs obtained from plants and **three** drugs from animal sources.
13. Mention the rationale for the use of Propranolol in thyrotoxicosis.
14. Mention the rationale for the use of Lignocaine in the treatment of cardiac arrhythmias.
15. Give any **three** advantages of calcium channel blockers as antihypertensives.
16. Explain the pharmacological basis for using frusemide in acute left ventricular failure.

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## MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course** | **MBBS Phase-II, February 2025** | **Max. Marks** | **25 Marks** |
| **Subject** | **Pharmacology Paper-I, QP Code 1006** | **Time** | **30 Minutes** |

**Instructions**

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. Essential drugs are
   (A) Life saving drugs
   (B) Drugs that meet the priority health care needs of the population
   (C) Drugs that must be present in the emergency bag of a doctor
   (D) Drugs that are listed in the pharmacopoeia of a country

2. Bioavailability of drug refers to
   (A) Percentage of administered dose that reaches systemic circulation in the unchanged form
   (B) Ratio of oral to parenteral dose
   (C) Ratio of orally administered drug to that excreted in the faeces
   (D) Ratio of drug excreted unchanged in urine to that excreted as metabolites

3. A prodrug is
   (A) The prototype member of a class of drugs
   (B) The oldest member of a class of drugs
   (C) An inactive drug that is transformed in the body to an active metabolite
   (D) A drug that is stored in body tissues and is then gradually released in the circulation

4. The therapeutic index of a drug is a measure of its
   (A) Safety (B) Potency
   (C) Efficacy (D) Dose variability

5. Pharmacogenetics is a study of
   (A) Gene therapy (B) Recombinant DNA technology
   (C) Genetic basis for variability in drug response (D) Carcinogenic effect of drug

6. Repeated administration of a drug over a short period of time may lead to
   (A) Tachyphylaxis (B) Enzyme induction
   (C) Drug resistance (D) All of the above

7. The reversible anticholinesterase which belongs to Acridine group is
   (A) Physostigmine (B) Donepezil
   (C) Edrophonium (D) Tacrine

8. A direct acting Cholinomimetic that is lipid soluble and has been used in the treatment of glaucoma is
   (A) Acetylcholine (B) Physostigmine
   (C) Pilocarpine (D) Neostigmine

9. The primary site of action of Beta 1 receptors is
   (A) Adipose tissue (B) Bronchi and GIT
   (C) Heart and JG cells in kidney (D) Urinary tract

10. Phenylephrine instilled in the eye produces
    (A) Mydriasis but no Cycloplegia (B) Cycloplegia but no Mydriasis
    (C) Both Mydriasis and Cycloplegia (D) Neither Mydriasis nor Cycloplegia

11. Additive depression of Sinus node and A-V node conduction is seen when Propranolol is combined with
    (A) Nifedipine (B) Enalapril
    (C) Losartan (D) Verapamil

12. The drug that is infused intravenously in the treatment of acute congestive glaucoma is
(A) Apraclonidine (B) Dorzolamide
(C) Latanoprost (D) Mannitol

13. Mechanism of action of Dantrolene is
(A) Inhibiting the generation of muscle action potential
(B) Reducing acetylcholine release from motor nerve endings
(C) Reducing Calcium release from sarcoplasmic reticulum in the muscle fibre
(D) Suppressing spinal polysynaptic reflexes

14. Eutectic Lignocaine-Prilocaine has the following unique property
(A) It causes motor blockade without sensory block
(B) By surface application, it can anaesthetise unbroken skin
(C) It is not absorbed after surface application
(D) It has strong vasoconstrictor action

15. The effect of Thiopentone on the CNS is quickly terminated because of
(A) Rapid metabolism in the CNS (B) Quick first-pass elimination
(C) Redistribution (D) Rapid metabolism in systemic circulation

16. Drug of choice for intractable hiccoughs is
(A) Metoclopromide (B) Chlorpromazine
(C) Thioridazine (D) Domperidone

17. All of the following are anxiolytic drugs **EXCEPT**
(A) Alprazolam (B) Fluoxetine
(C) Buspirone (D) Risperidone

18. Antihypertensive drug of choice in a diabetic patient is
(A) Methyldopa (B) Beta blocker
(C) ACE inhibitor (D) Thiazides

19. Rebound hypertension on sudden stoppage of medication is **most** likely to occur with
(A) Hydrochlorothiazide (B) Prazosin
(C) Clonidine (D) Lisinopril

20. The following antihypertensive is used topically to treat alopacia areata
(A) Hydralazine (B) Prazosin
(C) Minoxidil (D) Indapamide

21. The antidote for streptokinase overdose is
(A) Vitamin K (B) Aspirin
(C) Epsilon aminocaproic acid (D) Alteplase

22. Rate limiting step in cholesterol synthesis is inhibited by
(A) Cholestyramine (B) Gemfibrozil
(C) Nicotinic acid (D) Atorvastatin

23. Select the diuretic that can cause gynaecomastia, hirsutism and menstrual disturbance as a side effect on long-term use
(A) Amiloride (B) Spironolactone
(C) Metolazone (D) Acetazolamide

24. Choose the **correct** statement about Amiloride
(A) It antagonises the action of Aldosterone (B) It can be used to treat Lithium induced Diabetes Insipidus
(C) It increases Calcium loss in urine (D) It is dose to dose less potent than Triamterene

25. The drug used in Diabetes Insipidus is
(A) Thioguanine (B) Thiacetazone
(C) Thioridazone (D) Thiazide diuretics

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## MBBS PHASE – II
## DEGREE EXAMINATION – FEBRUARY 2025

**Time 3 Hours** **Max. Marks 100**

## PHARMACOLOGY
## PAPER – II

**Q.P. Code A008**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

| **Question Number** | | **Marks** |
|---|---|---|
| 1. | M.C.Q. | **20 X 1 = 20** |
| | **LONG ESSAY QUESTIONS** | **2 X 10 = 20** |
| 2. | A 20 year old male with type I Diabetes Mellitus presents with severe abdominal pain, nausea, polyuria and polydypsia. History revealed non adherence to insulin regimen. On examination, his breath has the odour of Acetone. Urine analysis showed ketone bodies. A diagnosis of diabetic ketoacidos was made.<br>a. Discuss the management of diabetic ketoacidosis.<br>b. Discuss the uses & adverse effects of insulin therapy. | (5+5) |
| 3. | Enumerate aminoglycosides. Describe the mechanism of action, therapeutic uses and adverse effects of Gentamycin. | (2+4+2+2) |
| | **SHORT ESSAY QUESTIONS** | **9 X 5 = 45** |
| 4. | A 22-year-old female presents with complaints of fatigue, mild abdominal pain, and intermittent diarrhea for the past 2 weeks. She reports that her appetite has decreased and she has noticed a gradual weight loss over the past month. The patient mentions living in a rural area and frequently walking barefoot on soil, which is often damp. On examination, she appears pale and is slightly tachycardic. Laboratory investigations reveal microcytic hypochromic anemia with hemoglobin levels of 9 g/dL. Stool microscopy reveals hookworm eggs (Ancylostoma duodenale).<br>a) Mention the drugs used in treatment of hookworm infestation.<br>b) Explain the mechanism of action and adverse effects of any **one** drug used in the same. | (2+3) |
| 5. | Explain the principles of treatment of HIV infection and add a note on first line antiretroviral regimen. | |
| 6. | Classify uterine stimulants with suitable examples. Write the uses and adverse effects of Oxytocin. | |
| 7. | A 65 year old lady who has sustained a vertebral fracture has been diagnosed to be having osteoporosis. Mention the various classes of drugs used in the treatment of osteoporosis. Explain the mechanism of action and the uses of Bisphosphonates. | |
| 8. | A cashier presents with severe one sided headache, sensitivity to light, sound & smell, blurred vision. He gives history of such frequent exacerbations whenever there is increased workload.<br>a) Identify the probable diagnosis.<br>b) Discuss the prophylactic treatment of the above condition.<br>c) Add a note on non-pharmacological measures to prevent such attacks. | (1+3+1) |

9. A 50 year old man diagnosed with carcinoma of the colon has been prescribed antiemetic drugs to prevent vomiting following chemotherapy. (1+4)
   a) Enumerate the various classes of drugs used in prevention and treatment of chemotherapy induced nausea and vomiting.
   b) Discuss the mechanism of action and adverse effects of any **one** class of drugs.

10. Classify the drugs used in the treatment of cough with relevant examples. Add a brief note on mucolytic agents. (2.5+2.5)

11. Classify immunosuppressants with relevant examples. Describe the mechanism of action of cyclosporine (2.5+2.5)

12. Describe the management of Acute Iron poisoning. Explain the pharmacological basis for the use of Desferroxamine in this condition. (3+2)

**SHORT ANSWER QUESTIONS** **5 X 3 = 15**

13. Give Pharmacological basis / reasons for the use of Latanoprost eye drops in patients with chronic simple glaucoma.

14. Explain the mechanism of action of proton pump inhibitors.

15. Explain the rationale for the use Monteluekast in bronchial asthma.

16. Define the term Antiseptic. Give **two** examples of oxidizing antiseptics.

17. Write a note on Autonomy vs Beneficence.

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# MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course** | **MBBS Phase-II, February 2025** | **Max. Marks** | **20 Marks** |
| **Subject** | **Pharmacology Paper-II, QP Code A008** | **Time** | **30 Minutes** |

**Instructions**

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. Choose the antimicrobial which acts by interfering with DNA function in the bacteria
   (A) Chloramphenicol (B) Ciprofloxacin
   (C) Streptomycin (D) Vancomycin

2. The sulfonamide whose Sodium salt yields a nearly neutral solution which is suitable for topical use in the eye is
   (A) Sulfadiazine (B) Sulfacetamide
   (C) Sulfadoxine (D) Sulfamoxole

3. A 10-week-old male has been diagnosed as a case of Sickle cell disease .Which of the following drug is used for the treatment of this case?
   (A) Hydroxyurea (B) Cisplatin
   (C) Paclitaxel (D) Carboplatin

4. Drug used in the treatment of Influenza virus infection is
   (A) Acyclovir (B) Amantadine
   (C) Zidovudine (D) Ritonavir

5. Tetracyclines inhibit protein synthesis by
   (A) Inhibition of initiation and misreading of mRNA
   (B) Binding to 30 S subunit and inhibiting the binding of aminoacyl-tRNA to A site
   (C) Inhibiting peptidyl transferase activity
   (D) Inhibiting translocation

6. Patients should be tested for G6PD deficiency before prescribing
   (A) Primaquine (B) Artemisinin
   (C) Quinine (D) Mefloquine

7. Fluroquinolone with **longest** half-life is
   (A) Levofloxacin (B) Lomefloxacin
   (C) Ciprofloxacin (D) Moxifloxacin

8. Which of the following is an anti-pseudomonal penicillin?
   (A) Cephalexin (B) Cloxacillin
   (C) Piperacillin (D) Dicloxacillin

9. A 45-year-old male patient presents with dyspepsia and dull epigastric pain. Upper gastrointestinal endoscopy reveals an ulcer measuring 12 mm X 18 mm in the 1st part of duodenum. He suffered from loose motions and abdominal pain. There is **NO** history of NSAID use. The **most** appropriate treatment option for him to achieve fast symptom relief, ulcer healing and prevention of further recurrences is
   (A) Pantoprazole + Amoxicillin+ Mebendazole (B) Famotidine + Amoxicillin+ Metronidazole
   (C) Omeprazole+ Amoxicillin+ Metronidazole (D) Ranitidine+ Ampicillin+ Metronidazole

10. A 65-year-old man presents to his family physician with a 3-month history of watery diarrhea. He is referred to a gastroenterologist, who finds that the patient is also hypokalemic and achlorhydric and has an elevated serum level of vasoactive intestinal peptide due to a pancreatic islet cell tumor (VIPoma).Which agent would be **best** to treat the patient's symptoms?
(A) Prucalopride (B) Lactulose
(C) Sucralfate (D) Octreotide

11. Aspirin is contraindicated in children suffering from influenza or similar viral infection because of increased risk of
(A) Gastric bleeding (B) Thrombocytopenia
(C) Fancony syndrome (D) Reye's syndrome

12. A 50 year old male patient presents to the OPD complaining of severe pain in the right big toe since last night. On examination, the toe is red, swollen and tender. His serum uric acid levels are raised. The first choice of drug for this patient would be
(A) Cholchicine (B) Indomethacin
(C) Allopurinol (D) Dexamethasone

13. Which of the following statement about Iodine is **FALSE**?
(A) Contraindicated in hyperthyroidism (B) Causes Iodism
(C) Inhibits the release of thyroxine (D) Inhibits the synthesis of iodo thyroxine and iodo thyronine

14. A 30-year-old woman presents with fatigue, weight loss, and hyperpigmentation of her skin. She is diagnosed with Addison's disease and requires lifelong corticosteroid replacement. Which corticosteroid is most **commonly** used for replacement therapy in Addison's disease?
(A) Prednisone (B) Hydrocortisone
(C) Dexamethasone (D) Triamcinolone

15. Which of the following is a steroid 5α-reductase inhibitor useful in benign prostatic hypertrophy and male pattern baldness?
(A) Flutamide (B) Finasteride
(C) Prazosin (D) Minoxidil

16. Which of the following is a synthetic estrogen?
(A) Estrone (B) Estriol
(C) Estradiol (D) Diethylstilbestrol

17. One of the most **common** side effects of inhaled Beclomethasone dipropionate is
(A) Pneumonia (B) Oropharyngeal candidiasis
(C) Atrophic rhinitis (D) Pituitary adrenal suppression

18. Which of the following immunosuppressant drugs is nephrotoxic?
(A) Azathioprine (B) Cyclophosphamide
(C) Mycophenolate mofetil (D) Tacrolimus

19. Which antiseptic acts by liberating oxygen to oxidize bacterial protoplasm?
(A) Chlorhexidine (B) Benzalkonium chloride
(C) Benzoyl peroxide (D) Isopropanol

20. Which of the following monoclonal antibodies is a humanized antibody?
(A) Rituximab (B) Palivizumab
(C) Infliximab (D) Basiliximab

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## MBBS PHASE – II
## DEGREE EXAMINATION – FEBRUARY 2025

**Time 3 Hours** **Max. Marks 100**

## PHARMACOLOGY
## PAPER – II

**Q.P. Code 1007**

Answers should be specific to the Questions asked.
Draw neat, labeled diagrams wherever necessary.
All questions are compulsory.

**Question Number** **Marks**

1. M.C.Q. **25 X 1 = 25**

**LONG ESSAY QUESTIONS** **2 X 10 = 20**

2. Classify oral hypoglycaemic drugs. Discuss the Mechanism of action, therapeutic uses and adverse effects of Metformin. (3+3+2+2)

3. Classify contraceptive methods. Enumerate the oral contraceptive preparations. Explain their MOA, therapeutic benefits with adverse effects. (2+2+6)

**SHORT ESSAY QUESTIONS** **8 X 5 = 40**

4. Describe Superinfections with antimicrobial therapy.
5. Discuss the mechanisms of developing resistance to anti-microbial agents.
6. Enumerate Beta lactamase inhibitors and their uses.
7. Enumerate Aminoglycosides. Mention their therapeutic uses and adverse effects.
8. Discuss the treatment of lepra reaction.
9. Discuss the therapeutic uses and adverse effect of second generation antihistaminic drugs.
10. Discuss about Disease Modifying Antirheumatic Drugs (DMARD).
11. Enumerate Prokinetic drugs. Mention their uses and adverse effects.

**SHORT ANSWER QUESTIONS** **5 X 3 = 15**

12. Discuss **two** drug combinations of sulfonamides.
13. Rationale of combining Probenecid with Pencillin.
14. Name **three** leukotriene antagonists with their uses.
15. Name **three** chelating agents with **one** use for each.
16. Mention **three** antiseptics containing Iodine with their uses.

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## MULTIPLE CHOICE QUESTIONS

| | | | |
|---|---|---|---|
| **Course** | **MBBS Phase-II, February 2025** | **Max. Marks** | **25 Marks** |
| **Subject** | **Pharmacology Paper-II, QP Code 1007** | **Time** | **30 Minutes** |

### Instructions

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. Aspirin produces analgesia by
   (A) Preventing sensitization of peripheral pain receptors
   (B) Affecting gating of pain impulses at spinal level
   (C) Raising pain threshold at subcortical level
   (D) Both A and C are correct

2. The NSAIDs aggravate the following diseases **EXCEPT**
   (A) Hypertension (B) Congestive heart failure
   (C) Peptic ulcer (D) Chronic gout

3. Which of the following drug is a bactericidal drug?
   (A) Sulfonamides (B) Erythromycin
   (C) Chloramphenicol (D) Cotrimoxazole

4. Which of the following is a **fourth** generation cephalosporin?
   (A) Ceftriaxone (B) Cefaclor
   (C) Cefepime (D) Cefuroxime

5. The most **common** mechanism of development of resistance to fluoroquinolones is
   (A) Chromosomal mutation altering affinity of target site (B) Plasmid transfer
   (C) Acquisition of drug destroying enzyme (D) Acquisition of alternative metabolic pathway

6. Which of the following aminoglycosides has **highest** nephrotoxicity?
   (A) Paramomycin (B) Streptomycin
   (C) Amikacin (D) Neomycin

7. The drug of choice for tropical eosinophilia is
   (A) Diethyl carbamazine (B) Carbamazepine
   (C) Dicyclomine (D) Carbimazole

8. Octreotide is given in all the following conditions **EXCEPT**
   (A) Bleeding esophageal varices (B) Secretory diarrhoea
   (C) Infective diarrhoea (D) Acromegaly

9. Tamoxifen is useful in the treatment of
   (A) Carcinoma prostate (B) Carcinoma ovary
   (C) Breast carcinoma (D) Seminoma

10. Prolonged testosterone treatment to a man results in
    (A) Increased spermatogenesis (B) Increased sperm motility
    (C) Azoospermia (D) Increased gonadotropins

11. The drug used for controlling tetany is
    (A) Intravenous diazepam (B) Intramuscular vitamin D
    (C) Intravenous calcium gluconate (D) Intravenous calcitonin

12. Ergometrine is contraindicated in the following conditions **EXCEPT**
    (A) Multiparity
    (B) Toxaemia of pregnancy
    (C) Pelvic sepsis
    (D) Peripheral vascular disease

13. The antithyroid drug with the most rapid onset of action is
    (A) I 131
    (B) Sodium iodide
    (C) Methimazole
    (D) Propylthiouracil

14. The **most** potent topical corticosteroid is
    (A) Hydrocortisone butyrate cream 0.1%
    (B) Betamethasone valerate cream 0.5%
    (C) Clobetasol propionate cream 0.5%
    (D) Clobetasone butyrate cream 0.5%

15. Which of the following antidiabetic drugs inhibits intestinal border alpha-glucosidase enzymes?
    (A) Acarbose
    (B) Troglitazone
    (C) Guar gum
    (D) Metformin

16. Bromhexine acts by
    (A) Inhibiting cough
    (B) Irritating gastric mucosa and reflexly increasing bronchial secretion
    (C) Depolymerising mucopolysaccharides present in sputum
    (D) Desensitizing stretch receptors in the lungs

17. Biological agent used in rheumatoid arthritis is
    (A) Rituximab
    (B) Methotrexate
    (C) Azathioprine
    (D) Sulfasalazine

18. Gynaecomastia can occur as a side effect of
    (A) Bromocriptine
    (B) Cimetidine
    (C) Famotidine
    (D) Omeprazole

19. The following anti-ulcer drug does **NOT** act by reducing the secretion of or neutralizing gastric acid
    (A) Magaldrate
    (B) Sucralfate
    (C) Misoprostol
    (D) Omeprazole

20. Granisetron is a
    (A) Second generation antihistaminic
    (B) Drug for peptic ulcer
    (C) Antiemetic for cancer chemotherapy
    (D) New antiarrhythmic drug

21. The following laxative lowers blood ammonia level in hepatic encephalopathy
    (A) Bisacodyl
    (B) Liquid paraffin
    (C) Lactulose
    (D) Magnesium sulfate

22. The preferred drug for controlling an acute exacerbation of ulcerative colitis is
    (A) Prednisolone
    (B) Sulfasalazine
    (C) Mesalazine
    (D) Vancomycin

23. Following are Antioxidant vitamins **EXCEPT**
    (A) Vitamin E
    (B) Beta carotene
    (C) Thiamine
    (D) Vitamin C

24. Which of the following vaccines is used as an adjuvant in immunotherapy of cancer
    (A) BCG
    (B) TT
    (C) DPT
    (D) MMR

25. Oxidizing antiseptic is
    (A) Potassium permanganate
    (B) Phenol
    (C) Chlorhexidine
    (D) Ethyl alcohol

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