

**MBBS PHASE – II
(CBME)
DEGREE EXAMINATION – APRIL 2024**

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 5-year-old male presents to your clinic today for a wellness check. His mother states that over the last week he has been restless while sleeping. Otherwise, he is healthy. While giving him a bath, she has noted mild perianal irritation but no change in bowel frequency or diarrhoea. He has complained of being itchy at night on several occasions, but has no other complaint. He was shown to a local GP and the doctor suspects of worm infestation based on history. a) Enumerate any six anthelmintic drugs b) Write the anthelmintic drug of choice with dose for above condition. c) Discuss the mechanism of action, uses and adverse effects of drug used in this condition. | (3+2+5=10) |
| 3. A female who has been working as a manager had busy schedule since past 1 year. She has been experiencing abdominal pain, vomiting, epigastric discomfort since past 6 months because of which she is unable to perform her daily routine activities. She also complains that pain aggravates on eating. What is the clinical condition? What are the first choice of drugs used in this case? Explain mechanism of action and uses of this drug class. | (2+2+6) |
| SHORT ESSAY QUESTIONS: | 9 X 5 = 45 |
| 4. Discuss therapeutic uses and side effects of Rifampicin. | |
| 5. Enumerate Aminoglycosides. Mention their therapeutic uses and adverse effects. | |
| 6. Discuss the mechanism of action and uses of Sirolimus. | |
| 7. Discuss about Disease Modifying Antirheumatic Drugs (DMARD). | |
| 8. Enumerate the types of Oral contraceptive pills (OCPs) and mention their mechanism of action. | |
| 9. Describe the pharmacological management of diabetic ketoacidosis. | |
| 10. Enumerate laxatives and purgatives. Discuss their uses and adverse effects | |
| 11. Discuss the role of mast cell stabilizers of bronchial asthma. | |
| 12. Explain treatment of Iron poisoning. | |
| SHORT ANSWER QUESTIONS: | 5 X 3 = 15 |
| 13. Give Pharmacological basis / reasons for the following statement. Chloroquine used in Rheumatoid arthritis. | |
| 14. Mention three adverse effects of Metoclopramide. | |
| 15. Name three leukotriene antagonists and write three uses. | |
| 16. Enumerate three live attenuated vaccines. | |
| 17. Enumerate the boundaries in the doctor-patient relationship. | |

MULTIPLE CHOICE QUESTIONS

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|---|-----------------------------|
| Course: MBBS Phase-II (CBME), April 2024 | 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. Select the antibiotic that has a high therapeutic index
(A) Streptomycin (B) Doxycycline
(C) Cephalexin (D) Vancomycin
2. Trimethoprim is combined with sulfamethoxazole in a ratio of 1:5 to yield a steady state plasma concentration ratio of
(A) Trimethoprim 1: Sulfamethoxazole 5 (B) Trimethoprim 1: Sulfamethoxazole 10
(C) Trimethoprim 1: Sulfamethoxazole 20 (D) Trimethoprim 5: Sulfamethoxazole 1
3. The following antimicrobial has antipseudomonal action
(A) Cefpodoxime proxetil (B) Cephradine
(C) Cefotetan (D) Cefoperazone
4. Disulfiram like interaction with alcohol has been reported with
(A) Cefepime (B) Ceftibuten
(C) Cefoperazone (D) Cefaclor
5. Which of the following is an irreversible inhibitor of cyclooxygenase?
(A) Aspirin (B) Phenylbutazone
(C) Indomethacin (D) Piroxicam
6. Platelet aggregation is caused by
(A) Thromboxane A₂ (B) Clonidine
(C) Glutethamide (D) Hydralazine
7. Immunostimulant used for the treatment of malignant melanoma is
(A) Levamisol (B) BCG
(C) Aldesleukin (D) Methotrexate
8. Anthelmintic agent which also acts as immunomodulator is
(A) Albendazole (B) Levamisole
(C) Mebendazole (D) Piperazine
9. Iodine 131 is the preferred treatment among
(A) Children (B) Young adults with recent onset Graves disease
(C) Elderly patients with ischemic heart disease (D) Pregnant women
10. 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%
11. Sucralfate promotes healing of duodenal ulcer by
(A) Enhancing gastric mucus and bicarbonate secretion (B) Coating the ulcer and preventing the action of acid-pepsin on ulcer base
(C) Promoting regeneration of mucosa (D) Both A and B are correct
12. The most effective anti-motion sickness drug suitable for short brisk journeys is
(A) Promethazine theoclate (B) Cinnarizine
(C) Prochlorperazine (D) Hyoscine

13. Leukotriene receptor antagonist used for bronchial asthma is
(A) Zafirlukast (B) Zileuton
(C) Cromolyn sodium (D) Aminophylline
14. Dextromethorphan is a
(A) Antihistaminic agent (B) Antitussive agent
(C) Expectorant (D) Mucolytic agent
15. One of the most **common** side effects of inhaled beclomethasone dipropionate is
(A) Pneumonia (B) Oropharyngeal candidiasis
(C) Atrophic rhinitis (D) Pituitary adrenal suppression
16. Drug preferred in prophylaxis of nocturnal asthma is
(A) Salbutamol (B) Salmeterol
(C) Ipratropium bromide (D) Terbutaline
17. Treatment of choice for Kawasaki disease is
(A) Intravenous immunoglobulin (B) Steroids
(C) Azathioprine (D) Aspirin
18. Which of the following monoclonal antibodies is a humanized antibody?
(A) Rituximab (B) Palivizumab
(C) Infliximab (D) Basiliximab
19. Which of the following is prescribed antenatally to prevent neural tube defects?
(A) Pyridoxine (B) Folic acid
(C) Cyanocobalamine (D) Thiamine
20. Rickets is due to deficiency of
(A) Vitamin D (B) Vitamin A
(C) Vitamin C (D) Vitamin B₁₂

MBBS PHASE – II
(CBME)
DEGREE EXAMINATION – APRIL 2024

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. 55 year old woman complained of sudden onset of chest pain, with radiation to left hand, breathlessness, sweating & dizziness. Laboratory investigations showed elevated cardiac troponins . What is the probable diagnosis? Describe the etiopathogenesis and complications of the given condition. | [1+5+4] |
| 3. Classify Germ cell tumours. Add a note on mature cystic Teratoma. Enlist serological biomarkers of germ cell tumours. | (3+5+2) |
| SHORT ESSAY QUESTIONS: | 9 X 5 = 45 |
| 4. Describe the etiopathogenesis of Chronic bronchitis. What is Reid index and mention it's significance. | (2+3) |
| 5. Mention risk factors for peptic ulcer disease. Enumerate it's complications. | (3+2) |
| 6. Enumerate causes of micronodular and macronodular cirrhosis. Describe the pathogenesis of cirrhosis. | (2+3) |
| 7. Discuss the pathogenesis and morphologic features of Hepatitis B Virus induced hepatitis? | |
| 8. Describe the etiopathogenesis and morphology of chronic pyelonephritis. | (2+3) |
| 9. Discuss etiopathogenesis of carcinoma breast. | |
| 10. Discuss complications of diabetes mellitus. | |
| 11. Describe the gross and microscopic features of Retinoblastoma. | |
| 12. Describe the gross and microscopic features of squamous cell carcinoma with a neat labeled diagram. | |
| SHORT ANSWER QUESTIONS: | 5 X 3 = 15 |
| 13. Enlist six etiological factors associated with Gastric carcinoma. | |
| 14. Classify testicular tumours. | |
| 15. Define Involucrum and Sequestrum. | |
| 16. Enumerate CSF findings in Pyogenic meningitis. | |
| 17. What is the role of empathy in patient care? | |

MULTIPLE CHOICE QUESTIONS

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| Course: MBBS Phase-II, (CBME) April 2024 | 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. Creeping fat or mesenteric fat wrapped around the bowel surface is found in
(A) Crohn disease (B) Ulcerative colitis
(C) Pseudomembranous colitis (D) Irritable bowel syndrome
2. In Mallory Weiss syndrome the site of tear is
(A) Distal Oesophagus (B) Proximal stomach
(C) Oesophago-gastric junction (D) Any of the above
3. Restrictive lung disease is characterized by the following features **EXCEPT**
(A) Dyspnoea (B) Tachypnoea
(C) Cyanosis (D) Wheezing
4. Fatty change in liver is seen in following conditions **EXCEPT**
(A) Non alcoholic steatohepatitis (B) Kwashiorkor
(C) Obesity (D) Viral Hepatitis
5. Small contracted kidney is seen in all of the following **EXCEPT**
(A) Acute tubular injury (B) Benign nephrosclerosis
(C) Chronic pyelonephritis (D) Chronic glomerulonephritis
6. Necrotizing papillitis is seen in all of the following **EXCEPT**
(A) Acute glomerulonephritis (B) Analgesic nephropathy
(C) Diabetes Mellitus (D) Sickle cell disease
7. All the factors increase the risk of carcinoma breast **EXCEPT**
(A) Obesity (B) Multiparity
(C) Nulliparity (D) Alcoholism
8. Which of the bone tumor arises from epiphysis?
(A) Osteogenic sarcoma (B) Ewing's Sarcoma
(C) Osteoclastoma (D) Osteoid osteoma
9. Pheochromocytoma is the tumour of
(A) Thyroid (B) Adrenal medulla
(C) Parathyroid (D) Pituitary
10. All are causes of Budd-chiari syndrome **EXCEPT**
(A) Paroxysmal nocturnal hemoglobinuria (B) Use of oral contraceptives
(C) Hypercoagulable state (D) Patient on warfarin therapy
11. Marker for Hepatitis B carrier state is
(A) HBsAg (B) HBcAg
(C) HBe Ag (D) HBd Ag
12. 45 year old farmer presented with ulceroproliferative lesion on skin at site of an old scar. Microscopy revealed atypical cells with keratin pearl formation. What is the most likely diagnosis?
(A) Malignant melanoma (B) Basal cell carcinoma
(C) Squamous cell carcinoma (D) Merkel cell carcinoma

13. All of the following are pre-malignant lesions of skin **EXCEPT**
(A) Xeroderma pigmentosa (B) Urticaria
(C) Bowens' disease (D) Actinic keratosis
14. Onion skin thickening of arteriolar wall is seen in
(A) Atherosclerosis (B) Medial calcific sclerosis
(C) Hyaline arteriosclerosis (D) Hyperplastic arteriosclerosis
15. Anitschkow cells are pathognomonic for
(A) Acute rheumatic fever (B) Yellow fever
(C) Malaria (D) Immune thrombocytopenic purpura
16. Homer Wright rosettes are seen in which CNS tumour?
(A) Pilocytic astrocytoma (B) Medulloblastoma
(C) Glioblastoma (D) Oligodendroglioma
17. Which of the following is the most **common** mesenchymal uterine tumour?
(A) Leiomyoma (B) Adenomyoma
(C) Stromal tumor (D) Leiomyosarcoma
18. 60 -year -old lady presented with post -menopausal bleeding. Cervix biopsy revealed malignant tumour composed of keratin pearls. What is the most likely etiologic agent associated with the given condition.
(A) HPV (B) EBV
(C) HHV (D) CMV
19. Which of the following does not involve in the bronchus?
(A) Bronchial asthma (B) Bronchiectasis
(C) Bronchitis (D) Emphysema
20. What is the most **common** manifestation of Asbestosis
(A) Pleural plaque (B) Mesothelioma
(C) Lung cancer (D) Pleural effusion

**MBBS PHASE – II
(CBME)
DEGREE EXAMINATION – APRIL 2024**

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 child was brought to the Paediatric out-patient department, who was suffering from fever and difficulty in swallowing. On examination, the neck was swollen with cervical lymphadenopathy, the temperature was raised, and the secretions in the mouth were drooling from the angle of mouth. Throat was congested, with whitish grey patch coating the oral mucosa and tonsils. a) What is the probable diagnosis and name the etiologic agent. b) Discuss the pathogenesis of this clinical condition. c) Describe the laboratory diagnosis of the infection. | (2+4+4) |
| 3. Explain in detail about the pathogenesis, laboratory diagnosis and management of Neurocysticercosis. | (4+3+3) |
| SHORT ESSAY QUESTIONS: | 9 X 5 = 45 |
| 4. A 60 year old male patient underwent abdominal surgery. After 5 days of surgery, patient started having yellowish discharge from abdominal suture site. Explain in detail how to prevent this infection. | |
| 5. Enumerate the organisms causing Sexually Transmitted Diseases. Describe the laboratory diagnostic methods in a case presenting with multiple Genital Ulcers. | |
| 6. What is Catheter Associated Urinary Tract Infections (CAUTI)? How do you collect the sample in suspected CAUTI and prevent this infection? | |
| 7. Discuss the various methods to investigate a suspected case of SARS-CoV-2. | |
| 8. Describe the pathogenesis and laboratory diagnosis of Cryptococcal meningitis. | |
| 9. Describe the role of microscopy in laboratory diagnosis of Malaria. | |
| 10. Describe the role of Clinical Microbiologist in Hospital Infection Control Committee (HICC). | |
| 11. Describe the bundle care provided to prevent Blood stream infection. | |
| 12. Discuss the laboratory diagnosis of Brucellosis. | |
| SHORT ANSWER QUESTIONS: | 5 X 3 = 15 |
| 13. Write three differences between Antigenic Drift and Antigenic Shift. | |
| 14. What are Opportunistic Infections? Give two examples of Opportunistic Parasitic Infection. | |
| 15. Describe the role of Mantoux test in diagnosing of Latent Tuberculosis. | |
| 16. List three viral causes of Acute Encephalitis. | |
| 17. Write the conditions in which the Informed Consent is not mandatory. | |

MULTIPLE CHOICE QUESTIONS

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|---|-----------------------------|
| Course: MBBS Phase-II (CBME), April 2024 | 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. Which of the following is **NOT** an example of Non-tuberculous Mycobacteria
(A) Mycobacterium smegmatis (B) Mycobacterium kansasii
(C) Mycobacterium avium complex (D) Mycobacterium leprae
2. Typical painless ulcers and nodules called Buruli ulcer are produced by
(A) Mycobacterium lepre (B) Mycobacterium paratuberculosis
(C) Mycobacterium malamoense (D) Mycobacterium ulcerans
3. Which of the following Sexually Transmitted Disease is preventable by Vaccine?
(A) Hepatitis B infection (B) Human Immune Deficiency Virus
(C) Herpes genitalis (D) Chancroid
4. The detection limit of Tubercle bacilli in smear microscopy is
(A) 100 bacilli/ml (B) 1000 bacilli/ml
(C) 10,000 bacilli/ml (D) 1,00,000 bacilli/ml
5. A 68 year old female, presented with chronic watery diarrhea. She was seropositive for Human Immune Deficiency Virus, her stool microscopy showed acid fast oocysts measuring 5 micron in diameter. What is the likely etiological agent?
(A) Cryptosporidium parvum (B) Isospora belli
(C) Entamoeba histolytica (D) Balantidium coli
6. A farmer presented with fever which is on and off since 3 years was diagnosed to be suffering from Chronic Brucellosis. All of the following serological tests would be helpful in the diagnosis at this state **EXCEPT**
(A) Standard Agglutination Test (B) 2 Mercapto-ethanol test
(C) Complement fixation test (D) Milk Ring test
7. Culture media used in the isolation of Leptospira is
(A) Ellinghausen-McCullough-Johnson-Harris (B) Tinsdale
(EMJH)
(C) Perkin (D) Pike
8. A man presented with fever, chills since 2 weeks after a Louse bite. There was a maculo-papular rash on the trunk which spread peripherally. The most likely diagnosis is
(A) Scrub typhus (B) Endemic typhus
(C) Rickettsial pox (D) Epidemic typhus
9. Most common manifestation of Toxoplasma gondii in immuno-competent adult is
(A) Lymphadenopathy (B) Chorioretinitis
(C) Myocarditis (D) Encephalitis
10. A 20 year old presented with projectile vomiting, headache and fever. He was hospitalized and diagnosed as Meningitis. The Gram stain of cerebrospinal fluid showed intracellular Gram negative Diplococci. Which organism is responsible for this condition
(A) Escherichia coli (B) Neisseria meningitidis
(C) Streptococcus pneumoniae (D) Klebsiella

11. The mechanism of action of Tetanospasmin is
 (A) Inhibition of GABA release (B) Inhibition of cyclic AMP
 (C) Inactivation of acetylcholine receptors (D) Inhibition of cyclic GMP
12. Zero dose of Oral Polio Vaccine is given at
 (A) Birth (B) Six weeks of age
 (C) Ten weeks of age (D) Fourteen weeks of age
13. Parasites causing Urinary Tract Infection are all **EXCEPT**
 (A) *Trichomonas hominis* (B) *Trichomonas vaginalis*
 (C) *Schistosoma haematobium* (D) *Dioctophyme renale*
14. A 25 year old female with suspected Urinary Tract Infection symptoms comes to Out Patient Department. Patient's clean catch midstream urine sample was collected for culture and sensitivity. Colony count was >105 CFU/ml of urine. Swarming growth was seen on blood agar, gram stain smear of colony showed gram negative coccobacilli, catalase positive, oxidase negative, Indole test-negative, Citrate test positive, Urease test positive, TSI test - alkaline/acid H₂S present. What is the etiological agent?
 (A) *Morganella morganii* (B) *Proteus mirabilis*
 (C) *Proteus vulgaris* (D) *Providencia stuartii*
15. Diseases transmitted by hard tick are all **EXCEPT**
 (A) Babesiosis (B) Kyasanur Forest Disease
 (C) Tularemia (D) Oroya fever
16. Blood transfusion transmitted infections are all **EXCEPT**
 (A) Hepatitis E (B) Hepatitis B
 (C) Malaria (D) Parvovirus B19
17. Rabies infection is identified by
 (A) Guarneri bodies (B) Negri bodies
 (C) Cowdry A bodies (D) Paschen bodies
18. A 21 year old vegetarian female presented with recurrent episodes of seizure, headache, vomiting and vertigo. MRI scan of brain revealed cystic lesion following which surgery was done. Cysts appeared yellowish white in colour with bladder like sac within it. What is the diagnosis?
 (A) Cerebral malaria (B) Neurocysticercosis
 (C) Cryptococcal meningitis (D) *Toxoplasma encephalitis*
19. Which organism is responsible for Whooping cough?
 (A) *Streptococcus pneumoniae* (B) *Bordetella pertussis*
 (C) *Mycobacterium tuberculosis* (D) *Mycoplasma pneumoniae*
20. A bone marrow transplant recipient becomes febrile and hypoxic and chest films demonstrate diffuse interstitial pneumonia. What is the most likely causal agent?
 (A) Paramyxovirus (B) Varicella-zoster virus
 (C) Herpes simplex virus (D) Cytomegalovirus
