Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – II (CBME) Degree Examination - 30-Jan-2024

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

PATHOLOGY – PAPER I (RS-4)
Q.P. CODE: 1026
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. 10 year old male presented with pain abdomen, fever and vomiting of one day duration. On examination there is tenderness over Mcburney's point. Ultrasound examination of the abdomen showed evidence of dilated appendix.
   a) What type of inflammation is seen in this condition?
   b) Discuss the cellular events occurring in this condition
   c) List the chemical mediators that facilitate the cellular events

2. 13 year old male has sudden onset of severe abdominal pain and cramping accompanied by chest pain, non productive cough, pain in the bones of the hand and fever. Physical examination revealed that his temperature is 39°C and pulse rate is 110/min. He has diffuse abdominal tenderness and spleenomegaly. Lab studies show haematocrit of 18% and peripheral smear showed sickle shaped cells. X ray chest showed bilateral pulmonary infiltrates
   a) Discuss the pathogenesis of the sudden onset symptoms in the child
   b) Discuss the laboratory investigations relevant to the history provided

SHORT ESSAYS **8 x 5 = 40 Marks**

3. Microscopic variants of Hodgkins Lymphoma.
4. Enumerate the steps in the investigations of the transfusion reaction.
5. Define necrosis. Discuss various types of necrosis with examples.
6. Paraneoplastic syndrome.
7. Type I hypersensitivity.
8. Chemical carcinogenesis.
9. Etiopathogenesis of Septic shock.
10. Define hypertrophy. Discuss the types of hypertrophy with their mechanism.

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Draw labelled diagram of fatty liver.
12. List any three tumour suppressor genes.
13. Stains for amyloidosis.
14. Packed cell volume.
15. Define granuloma and draw a neat diagram.
16. Differences between transudate and exudate.
17. Exfoliative cytology.
18. Fate of thrombus.
19. Draw peripheral smear picture of Megaloblastic anaemia.
20. Causes of Thrombocytopenia.

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) All are chemical mediators of acute inflammation **EXCEPT**
- A. Histamine
- B. Prostaglandin
- C. Leukotrienes
- D. Progesterone

21 ii) 50 year old male presents with breathlessness and weight loss. Imaging revealed nodular lesion in the left lung lower lobe. Biopsy shows an adenocarcinoma. Which of the following is the likely mutation associated with this condition?
- A. EGFR mutation
- B. PTEN mutation
- C. BCL2 mutation
- D. APC mutation

21 iii) Ghon's complex comprises of which one of the following
- A. Hilar lymphadenopathy
- B. Apical fibrocavitatory lesion
- C. Miliary lesions across bilateral lungs
- D. Progressive primary lesions

21 iv) Down's syndrome is due to
- A. Trisomy 22
- B. Trisomy 21
- C. Trisomy 18
- D. Trisomy 20

21 v) 63 year old male hypertensive develops paralysis of the right side of the body. Which of the following patterns of tissue injury is likely to be present in the brain after 4-5 days?
- A. Fat necrosis
- B. Caseous necrosis
- C. Coagulated necrosis
- D. Liquefactive necrosis

22 i) Acute promeylocytic leukemia characteristically shows presences of Auer rods in the blast. Which of the following stains highlight these Auer rods
- A. Verhoff stain
- B. Myeloperoxidase
- C. PAS
- D. Glial fibrillary acidic protein

22 ii) 70 year old male presented with worsening heart failure. Echocardiogram showed cardiomegaly with four chamber dilatation. Which type of amyloid is likely to be present in the heart
- A. SAA
- B. Transthyretin
- C. AL
- D. Beta2 microglobulin

22 iii) ESR is markedly raised in
- A. Multiple myeloma
- B. Malaria
- C. Acute myeloblastic leukemia
- D. Haemophilia

22 iv) Howell Jolly bodies are seen in
- A. Myeloblasts
- B. Lymphoblasts
- C. Megaloblasts
- D. Sickle cell

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22 v) Neutrophilia is typically seen in
- A. Acute bacterial infections
- B. Typhoid
- C. Malaria
- D. Infectious mononucleosis

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MBBS Phase – II Degree Examination - 30-Jan-2024

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

PATHOLOGY – PAPER I (RS-3)
Q.P. CODE: 1081

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. a) Define Necrosis
   b) Describe the various types of necrosis with suitable examples
   c) How does it differ from Apoptosis?

2. a) Define Anemia
   b) Classify anemias according to aetiology
   c) Discuss the morphology and lab diagnosis of Iron deficiency anemia

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Paraneoplastic syndromes
4. Septic shock
5. Amyloidosis
6. Pathogenesis of acquired immunodeficiency syndrome
7. Hereditary spherocytosis
8. Oncogenes
9. Chemical mediators of inflammation
10. Kleinfelter syndrome
11. Type IV hypersensitivity
12. Hemophilia A

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Peripheral smear and bone marrow findings in Aplastic anemia
14. Name two fixatives and two stains used in cytology
15. Name the transfusion transmitted diseases
16. Name three indications for bone marrow aspiration
17. Urinary cast
18. What is Frozen section? Mention its advantages
19. L.E Cell
20. Principle of benedicts test and its advantages
21. Enumerate the causes of thrombocytopenia
22. Three disadvantages of Sahli's Hb estimation

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MBBS Phase – II (CBME) Degree Examination - 01-Feb-2024

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

PATHOLOGY – PAPER II (RS-4)
Q.P. CODE: 1027
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. 50 year male admitted with complaints of epigastic pain with nausea and vomiting. Pain is relived after food or by ingestion of alkali.
   a) What is your diagnosis?
   b) Describe the etiopathogenesis of the condition
   c) Describe the gross and microscopy of the lesion
2. 5 year old male child complaints of facial puffiness and swelling of lower limbs. Urine examination is positive for protein.
   a) What is your diagnosis?
   b) Discuss the etiopathogenesis in this condition
   c) Discuss the urinary and biochemical characteristics of this condition

SHORT ESSAYS **8 x 5 = 40 Marks**

3. Classify germ cell tumours of ovary. Write a note on dysgerminoma.
4. Renal calculi.
5. Chronic pyelonephritis.
6. Acute pancreatitis
7. Gross and microscopy of cirrhosis of Liver.
8. Emphysema.
9. Wilm's tumor.
10. Polyps of large intestine.

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Warthin's tumor.
12. Paget's disease of nipple.
13. Microscopic features of Granulosa cell tumor of ovary.
14. Morphological pattern of pericarditis.
15. Endometriosis.
16. Microscopic features of squamous cell carcinoma.
17. Schwannoma.
18. Microscopy of osteoclastoma.
19. Enzyme levels in acute myocardial infarction.
20. Benign prostatic hyperplasia.

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) All are true about Nasopharyngeal Angiofibroma **EXCEPT**
- A. Epitaxis
- B. Highly vascular tumor
- C. Adolescent male
- D. Malignant tumor

21 ii) Warthin tumor is **NOT**
- A. Benign tumor
- B. Solid and cystic tumor of salivary gland
- C. Microscopy shows oncocytes and lymphoid follicles
- D. Most common by seen in young adults

21 iii) All are true about Chronic gastritis **EXCEPT**
- A. H pylori infection
- B. Antral gastritis
- C. Risk of lymphoma
- D. Good appetite

21 iv) Bronchiectasis is characterized by **EXCEPT**
- A. Dilatation of bronchi
- B. Lung abscess
- C. Peri bronchiolar fibrosis
- D. Large alveoli

21 v) Bronchial carcinoid arises from
- A. Columnar epithelial cells
- B. Goblet cells
- C. Neuroendorine cells
- D. Alveolar lining cells

22 i) Chalazion is chronic inflammatory process involving
- A. Sebaceous gland of Zeiss
- B. Meibomian glands
- C. Apocrine glands of Moli
- D. Eyelash follicle

22 ii) Endometriosis is seen in **EXCEPT**
- A. Uterus
- B. Ovary
- C. Fallopian tube
- D. Liver

22 iii) All is the true with fibrolamellar hepato cellular carcinoma **EXCEPT**
- A. Found in young age
- B. Not proceeded by cirrhosis
- C. Encapsulated
- D. Worse prognosis than hepatocellular carcinoma

22 iv) **Rodent** ulcer is
- A. Sebaceous carcinoma
- B. Squamous cell carcinoma
- C. Basal cell carcinoma
- D. Melanoma

22 v) Common cause of nephrotic syndrome is children
- A. Acute post streptococcal glomerulonephritis
- B. Minimal change disease
- C. Membrano proliferative glomerulonephritis
- D. Rapidly progressive glomerulonephritis

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MBBS Phase – II (CBME) Degree Examination - 03-Feb-2024

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

PHARMACOLOGY – PAPER I (RS-4)
Q.P. CODE: 1028
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. Define Bioavailability? Discuss various factors affecting Bioavailability

2. A 40 year old man consults his family physician with complaints of difficulty to fall asleep since a month. He was diagnosed to be suffering from chronic insomnia. He was prescribed a Benzodiazepine.
   a) Explain the mechanism of action of benzodiazepines
   b) Enumerate the advantage of Benzodiazepines over Barbiturates as sedative hypnotics
   c) Enumerate any two non-benzodiazepines hypnotics. Write two advantages

SHORT ESSAYS **8 x 5 = 40 Marks**

3. Clinical significance of plasma protein binding
4. A 62 year old man presented with pain in both knees, worsened by walking. The doctor made a diagnosis of osteoarthritis and prescribed one of the non-steriodal anti-inflammatory drugs (NSAIDs)
   a) Mention any four NSAIDs useful in this condition
   b) Discuss the adverse effects of NSAIDs
5. Advantages and disadvantages of Nitrous oxide as a General anaesthetic agent
6. Mechanism of action and uses of Prazosin
7. Therapeutic uses of Atropine substitutes
8. Compare and contrast Physostigmine and Neostigmine
9. A 18 year old lady presented with breathlessness and wheezing. She was diagnosed to be suffering from Bronchial asthma and prescribed a bronchodilator. Mention any two groups of Bronchodilators giving one example used in bronchial asthma. Explain the mechanism of action of each group
10. Mechanism of action and therapeutic uses of Omeprazole

SHORT ANSWERS **10 x 3 = 30 Marks**

11. What is a prodrug? Give two examples?
12. Rationale of using Pralidoxime in acute Organophosphorus poisoning
13. Enumerate three advantage of atypical antipsychotics over conventional antipsychotics
14. What is Eutectic mixture of local anaesthtics. Mention two uses
15. What is Succinylcholine apnoea? Write the management of Succinylcholine apnoea
16. Rationale of using Colchicine in the management of acute gout
17. Rationale of combining **Formoterol** with Budesonide in Bronchial asthma
18. Rationale of using Metoclopramide in the treatment of gastro-oesophageal reflux disease
19. Rationale of using ethyl alcohol in methanol poisoning
20. Enumerate three advantages of fixed dose combination of drugs

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) A drug which is eliminated by alveolar route is
- A. Ketamine
- B. Halothane
- C. Thiopentone
- D. Lithium

21 ii) Morphine is contraindicated in head injury because it
- A. Increases intracranial tension
- B. Increases histamine release
- C. Suppresses hypothalamopituitary axis
- D. Increases blood pressure

21 iii) Antacid that causes constipation as an adverse effect is
- A. Magnesium hydroxide
- B. Magnesium trisilicate
- C. Aluminium hydroxide
- D. Sodium bicarbonate

21 iv) Chelating agent used for the treatment of Wilson's disease is
- A. Deferiprone
- B. Desferrioxamine
- C. Penicillamine
- D. Deferasirox

21 v) Maximum response produced by a drug is
- A. Potency
- B. Efficacy
- C. Toxicity
- D. Tolerability

22 i) Atropine substitute used as mydriatic is
- A. Phenylephrine
- B. Glycopyrrolate
- C. Tiotropium
- D. Cyclopentolate

22 ii) A 30 year old patient developed anaphylactic shock following administration of Benzyl penicillin injection. Which of the following drug is life saving in this condition
- A. Adrenaline
- B. Propranolol
- C. Prazosin
- D. Physostigmine

22 iii) Sumatriptan is contra indicated in which of the following condition
- A. Peptic ulcer
- B. Tuberculosis
- C. Angina Pectoris
- D. Diabetes mellitus

22 iv) Selective serotonin reuptake inhibitor used in the treatment of depression is
- A. Olanzapine
- B. Morphine
- C. Fluoxetine
- D. Phenylephrine

22 v) Long acting β_2 agonist used in Bronchial asthma is
- A. Salbutamol
- B. Salmeterol
- C. Terbutaline
- D. Tiotropium

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MBBS Phase – II (CBME) Degree Examination - 05-Feb-2024

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

PHARMACOLOGY – PAPER II (RS-4)
Q.P. CODE: 1029
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. A 52 year old obese male attended endocrinology department with polyuria, polyphagia, polydipsia and generalized weakness. His random blood sugar is 200 mg%, HbA1c is 8%. He is not on any other medication. He was diagnosed to be suffering from Type-2 diabetes mellitus
   a) Classify Oral Antidiabetic drugs with suitable examples
   b) Explain the mechanism of action and enumerate the adverse effects of Metformin
   c) Outline the drug treatment of Diabetic Ketoacidosis
2. a) Classify the drugs used in the treatment of Tuberculosis with examples
   b) Describe the mechanism of action, therapeutic uses, adverse effects of Rifampicin

SHORT ESSAYS **8 x 5 = 40 Marks**

3. .A 53 year old man presented with complaints of chest tightness and pain while climbing stairs, relieved after rest. A diagnosis of exertional angina was made. He was prescribed glyceryl trinitrate.
   a) Explain the mechanism of action of glyceryl trinitrate in angina pectoris
   b) What are the adverse effects of glyceryl trinitrate?
4. .Mention any three groups of antiplatelet agents giving an example for each. Mention the uses of antiplatelet drugs
5. A 65 year old patient presented with headache, giddiness and palpitations. He had no other neurological symptoms. His Blood pressure was 280/148 mm of Hg. Discuss the drug treatment of hypertensive emergencies
6. Mechanism of action, precautions and Uses of Radioactive Iodine
7. Discuss HAART (Highly active anti retroviral therapy)
8. Mechanism of action, Therapeutic uses and Adverse effects of Cyclosporine
9. Mechanism of action and Therapeutic uses of Potassium sparing Diuretics
10. Mechanism of action, Uses and Adverse effects of Clomiphene citrate

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Name three live attenuated vaccines
12. Rationale for combining Amoxicillin with Clavulanic acid
13. Name two statins. Why is statin not combined with fibrates?
14. Three contraindications for the use of Enalapril
15. Three drugs used in Choloroquine resistant falciparum malaria
16. Mention three general toxicities of Aminoglycoside antibiotics
17. Rationale of using Digoxin in heart failure
18. Mention three measures to be taken to prevent the development of antimicrobial drug resistance
19. What are advantages of Liposomal Amphotericin–B?
20. What is Pseudomembranous enterocolitis? Name Two drugs used for its treatment.

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) Which of the following drug is a direct renin inhibitor used as an antihypertensive
- A. Atenolol
- B. Aliskerin
- C. Amiloride
- D. Amlodipine

21 ii) All of the following combinations are used to treat Hypertension **EXCEPT**
- A. Amlodipine + Lisinopril
- B. Lisinopril + Hydrochlorthiazide
- C. Losartan + Amlodipine
- D. Verapamil+ Propranolol

21 iii) The drug useful in treating Biliary colic is
- A. Neostigmine
- B. Pilocarpine
- C. Nitroglycerine
- D. Physostigmine

21 iv) Primary indication for Recombinant human erythropoietin is
- A. Pulmonary embolism
- B. Coronary artery disease
- C. Deep vein thrombosis
- D. Chronic renal failure

21 v) Which of the following oral antidiabetic drug inhibits enzyme Dipeptidyl peptidase- 4
- A. Metformin
- B. Glimeperide
- C. Acarbose
- D. Vildagliptin

22 i) Indication for Tamoxifen citrate is
- A. Female infertility
- B. Endometrial carcinoma
- C. Carcinoma breast
- D. Deep vein thrombosis

22 ii) Which of the following is a common property of Aminoglycoside antibiotics?
- A. They are primarily active against aerobic gram negative bacilli
- B. They are more active in acidic medium
- C. They are all absorbed orally
- D. They are completely metabolized in liver

22 iii) 'Red man syndrome' is associated with rapid intravenous injection of the following antibiotic
- A. Vancomycin
- B. Clindamycin
- C. Cefoperazone
- D. Piperacillin

22 iv) The drug of choice for tropical eosinophilia is
- A. Carbamazepine
- B. Diethylcarbamazine
- C. Carbimazole
- D. Clomiphene citrate

22 v) Orally effective drug in scabies is
- A. Permethrin
- B. Ivermectin
- C. Benzoyl peroxide
- D. Crotamiton

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MBBS Phase – II (CBME) Degree Examination - 07-Feb-2024

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

MICROBIOLOGY – PAPER I (RS-4)
Q.P. CODE: 1030
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. A 55 year old male was admitted to the hospital with the complaints of severe pain in the lateral aspect of left lower limb. On examination the local area was found to be red, warm and tender. Pus was aspirated and sent for Gram's stain and culture. Gram's stain shows Gram positive cocci in chains. Culture has yielded beta – hemolytic colonies on blood agar.
    a. What is the clinical diagnosis and its causative organism?
    b. Mention four deep tissue infections caused by this organism.
    c. Mention four virulence factors of this organism.
    d. Briefly discuss laboratory diagnosis.

2. A 31 year old man from Bihar presented with splenomegaly, anemia and fever. The Bone marrow aspirate collected was subjected to Giemsa staining which revealed Amastigotes filled within a macrophage.
    a. Identify the parasitic agent and clinical diagnosis.
    b. Write briefly about the **life cycle** of the etiological agent.
    c. What are the various diagnostic modalities?
    d. How will you treat this condition?

SHORT ESSAYS **8 x 5 = 40 Marks**

3. . Auto immunity.
4. . Laboratory diagnosis of **Hepatitis** B infection.
5. . Chemical disinfectants.
6. **Laboratory** diagnosis of dengue haemorrhagic fever.
7. Diagnosis, treatment and prophylaxis of Gas Gangrene
8. Describe the morphology of bacteria with labelled diagram.
9. An adult male complains of passing loose watery stools and vomiting since one day. On examination, patient is dehydrated.
    a. What is the presumptive clinical diagnosis?
    b. Enumerate viral and bacterial causes of diarrheoa
    c. Laboratory diagnosis of cholera
10. Bacterial toxins

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Pathogenesis of shigellosis
12. Prophylaxis of enteric fever.
13. How will you demonstrate capsule?
14. Mention three differences between Taenia saginata and Taenia solium.
15. Laboratory diagnosis of Giardiasis.
16. Mention three immunodeficiency diseases.
17. Name three blood borne viral infections
18. Mention three dermatophytes.
19. Write the three common microbial agents causing Anaemia.
20. Name three uses of ELISA

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) The larval form of Hymenolepsis nana is
- A. Hydatid cyst
- B. Coenurus
- C. Cysticercus
- D. Cysticercoid

21 ii) Common name of Trichuris trichiura
- A. Pinworm
- B. Roundworm
- C. Whipworm
- D. Hookworm

21 iii) The correct sequence of manifestation seen in measles
- A. Fever, **Koplik's** spots, rash
- B. **Koplik's spots**, fever, rash
- C. Rash, fever, Koplik's spots
- D. Rash, **Koplik's** spots, fever

21 iv) Following Rubella vaccination, pregnancy should be avoided for atleast how many months?
- A. 1 month
- B. 2 months
- C. 3 months
- D. 6 months

21 v) Gram stain morphology of Bacillus anthracis is
- A. Tennis racket appearance
- B. Drumstick appearance
- C. Bamboo stick appearance
- D. Spectacle glass appearance

22 i) Bejel is caused by
- A. Treponema pertenue
- B. Treponema endemicum
- C. Treponema pallidum
- D. Treponema carateum

22 ii) MRSA is mediated due to
- A. Plasmid
- B. Mec A gene
- C. Transposons
- D. **Chromosome**

22 iii) Mechanism of direct transfer of free DNA
- A. Transformation
- B. Conjugation
- C. Transduction
- D. Transposition

22 iv) Which of the following **viruses** is enveloped?
- A. **Poliomyelitis** virus
- B. Adeno virus
- C. Herpes virus
- D. Parvovirus B19

22 v) Spherules are seen in
- A. Rhinosporidiosis
- B. Chromoblastomycosis
- C. Mucor mycosis
- D. Aspergillosis

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MBBS Phase – II (CBME) Degree Examination - 09-Feb-2024

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

MICROBIOLOGY – PAPER II (RS-4)
Q.P. CODE: 1031
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. A 44 old woman presented to casualty with history of recurrent low grade fever and headache from past 30 days. Patient developed vomiting from past two days. On examination patient had signs of meningitis. CSF examination revealed the presence of AFB
    a) Diagnose this clinical condition
    b) Describe in detail pathogenesis of this condition
    c) Discuss the laboratory diagnosis
    d) Add a note on DOTS

2. A 65 year old patient visited a hospital with complaints of dry cough, sore throat and fever. During the visit patient was not wearing any mask. The security guard guided him to go to the casualty. The resident doctor who was also not wearing the mask, took the history and examined the patient. His throat swab was sent for COVID-19 testing, which turned out to be positive. Subsequently the security and the resident doctor also turned out to be positive for Covid-19.
    a) Name four respiratory viruses
    b) Discuss the laboratory diagnosis of this disease
    c) Identify the infection control breaches
    d) Discuss the infection control measures to prevent the transmission along with note on vaccines

SHORT ESSAYS **8 x 5 = 40 Marks**

3. .Laboratory diagnosis of faucial diphtheria
4. .Pathogenesis and lab diagnosis of trichomoniasis
5. .Laboratory diagnosis of UTI
6. Gonococcal uretheritis
7. Laboratory diagnosis of rabies
8. Laboratory diagnosis of pertussis
9. Clinical features and lab diagnosis of brucellosis
10. Chancroid

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Enumerate three Oncogenic viruses
12. Mention the clinical types of plague
13. Mention the clinical manifestations of polio
14. Mention three health care associated infections
15. Mention three pulmonary parasites infecting man
16. Mention three viruses casing encephalitis
17. Rhinocerebral mucormycosis
18. Laboratory diagnosis of dengue fever
19. Draw a neat labelled diagram of hydatid cyst
20. Write the components of standard precautions in health care delivery

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) The most effective way to preventing diphtheria
- A. Hyperbaric oxygen
- B. Antibiotics
- C. DPT
- D. Tonsillectomy

21 ii) IV bottles are disposed in which of the following containers
- A. Red
- B. Blue
- C. Yellow
- D. Black

21 iii) How much bacillary load in sputum is required for an effective transmission of M. tuberculosis?
- A. 10 bacilli/mL
- B. 100 bacilli/mL
- C. 1000 bacilli/mL
- D. 10000 bacilli/mL

21 iv) Scrub typhus is transmitted by the bite of
- A. Louse
- B. Mite
- C. Rat flea
- D. Tick

21 v) Zero dose of OPV is given
- A. At one month
- B. At birth
- C. At two months
- D. At three months

22 i) Herpes is identified by
- A. Guarneri bodies
- B. Negri bodies
- C. Cowdry type A bodies
- D. Paschen bodies

22 ii) Which of following is correct about prions?
- A. Destroyed by autoclaving at 121°C
- B. Long incubation period
- C. Immunogenic
- D. Nucleic acid present

22 iii) False statement regarding Japanese B encephalitis
- A. It is caused by flavi virus
- B. Transmitted by Aedes Mosquito
- C. Endemic in India
- D. Man is dead end host

22 iv) Oocyst of Toxoplasma gondii excreted in the feces of
- A. Cat
- B. Sheep
- C. Cattle
- D. Dog

22 v) Humans acquire Cysticercus cellulosae infection by all **EXCEPT**
- A. Ingestion of contaminated vegetables
- B. Autoinfection
- C. Reverse peristalsis
- D. Ingestion of contaminated pig's meat

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MBBS (Phase - II) Degree Examination - 01-Feb-2024

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

PATHOLOGY – PAPER - II (RS-3)
Q.P. CODE: 1082

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. Describe the etiopathogenesis and morphological features of colorectal carcinoma
2. Classification and microscopic features of acute glomerulonephritis

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Renal cell carcinoma
4. Etiopathogenesis of atherosclerosis
5. Bronchial asthma
6. Papillary carcinoma thyroid
7. Infective endocarditis
8. Pneumoconiosis
9. Warthin's tumor
10. Cirrhosis of liver
11. Hodgkins lymphoma
12. Prognostic factors of carcinoma breast

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Premalignant lesions of Penis
14. Medulloblastoma
15. Microscopy of malignant melanoma
16. Cushing's syndrome
17. Schwannoma
18. Carcinoid tumor
19. Tuberculous Osteomyelitis
20. Type II Multiple Endocrine Neoplasia Syndrome
21. Retinoblastoma
22. Von Recklinghausen's disease

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MBBS (Phase - II) Degree Examination - 03-Feb-2024

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

MICROBIOLOGY – PAPER I (RS-3)

Q.P. CODE: 1083

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. Classify **Mycobacteria**. Describe the pathogenesis, laboratory diagnosis and prophylaxis of pulmonary tuberculosis
2. Define and classify sterilisation. Add a note on moist heat sterilisation

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Coagulase test
4. Louis Pasteur
5. Bacterial flagella
6. Lab diagnosis of urinary tract infection
7. Laboratory diagnosis of **Shigellosis**
8. Plasmid
9. ASLO test **(Anti Streptolysin O test)**
10. IgG antibody
11. ELISA
12. Anaerobic culture media

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Name three sexually transmitted infections
14. Name three vaccines
15. Transport media
16. Exotoxins and Endotoxins
17. Mechanisms of innate immunity
18. Name three autoimmune diseases
19. CRP **(C-Reactive Protein)**
20. Name three bacteria causing wound infections
21. Name three motile bacilli
22. Name three selective media

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS (Phase - II) Degree Examination - 05-Feb-2024

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

MICROBIOLOGY - PAPER II (RS-3)
QP CODE: 1084

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. Describe the life cycle and laboratory diagnosis of Plasmodium falciparum. Mention the complications of **Plasmodium** falciparum infection
2. Discuss the pathogenesis and prophylaxis of poliomyelitis

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Describe the pathogenesis and laboratory diagnosis of **aspergilloma**
4. Describe the life cycle and laboratory diagnosis of Hydatid cyst disease
5. Describe the life cycle of Ascaris lumbricoides
6. Laboratory diagnosis of dermatophytosis
7. Describe the laboratory diagnosis of candidiasis
8. Dengue infections - **epidemiology and laboratory diagnosis**
9. Describe the methods of safe disposal of biomedical waste
10. Discuss the antigenic variations in Influenza
11. What is Cytopathic effect? Mention different types of Cytopathic effect with suitable examples
12. Describe the laboratory diagnosis of Rabies

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Mention three stool concentration techniques
14. What is Larva migrans? Give example
15. Describe the morphology of eggs of trichuris
16. NIH swab
17. Name three soil transmitted **helminths**
18. Describe the immunoprophylaxis for COVID – 19
19. Name three viral vaccines
20. Name four viruses that are transmitted from mother to baby
21. Name three flaviviruses
22. Universal precautions to be practiced in health care setting

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS (Phase - II) Degree Examination – 07-Feb-2024

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

PHARMACOLOGY – PAPER I (RS-3)
Q.P. CODE: 1085

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. Classify antianginal drugs. Write mechanism of action, therapeutic uses and adverse effects of glyceryl trinitrate
2. Define Bioavailability. Discuss the factors affecting bioavailability of drugs with suitable examples

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Lignocaine
4. Therapeutic uses and adverse effects of propranolol
5. Morphine and its uses
6. Write mechanism of action and therapeutic uses of Warfarin sodium
7. Discuss about therapeutic uses and adverse effects of α-adrenergic blockers
8. Discuss methods of prolonging duration of action of a drug with suitable examples
9. Furosemide
10. Preanaesthetic medications
11. Write therapeutic uses and adverse effects of enalapril
12. Write therapeutic uses and adverse effects of carbamazepine

SHORT ANSWERS **10 x 3 = 30 Marks**

13. What is Teratogenicity? Write two examples of proved teratogenic drugs
14. Potassium sparing diuretic
15. Explain why adrenaline is used in treatment of anaphylactic shock
16. Drugs used in myasthenia gravis
17. Define prodrug. Write two examples of prodrug
18. Enumerate benefits of levodopa-carbidopa combination
19. Name three calcium channel **blockers**
20. Write the medical uses of ethanol
21. Clinical significance of plasma protein binding of drugs
22. Enumerate three drugs used in hypertensive emergencies

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Rajiv Gandhi University of Health Sciences, Karnataka

M.B.B.S. PHASE II Degree Examination – 09-Feb-2024

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

PHARMACOLOGY - PAPER -II (RS3)
QP Code: 1086

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAYS **2 x 10 = 20 Marks**

1. Classify oral antidiabetic drugs. Explain mechanism of action, therapeutic uses and adverse effects of Sulfonylureas.
2. Classify Penicillins. Explain mechanism of action, therapeutic uses and adverse effects of Penicillin G.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Tetracyclines.
4. Anti H-pylori regimen in peptic ulcer.
5. Ondansetron.
6. Oxytocin.
7. Radical cure of vivax malaria.
8. Fluoroquinoles – MOA and uses.
9. Uses and adverse effects of Rifampicin.
10. Aminoglycosides and its uses.
11. Advantages and disadvantages of radioactive iodine.
12. Prokinetics agents

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Name three disinfectants.
14. Anti tussive.
15. Name three insulin preparations.
16. Name three antimicrobial agents used in enteric fever.
17. List three drugs used in Bronchial asthama.
18. Enumerate three chelating agents and their uses.
19. List three anthelmintic drugs.
20. List three anti retroviral drugs.
21. Name three prostaglandins analogues and their uses.
22. Oral rehydration salt and its uses.

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS PHASE II Degree Examination – 12-Feb-2024

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

FORENSIC MEDICINE (RS3)
QP Code: 1087

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAYS **2 x 10 = 20 Marks**

1. Classify Burns and give the differentiating features between antemortem and post mortem burns.
2. Define drunkenness and signs and symptoms and treatment of methyl alcohol poisoning.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Consent
4. Methods of removal of organs at Autopsy
5. Describe the procedure of detecting lies by using a polygraph.
6. Coup and contrecoup injuries
7. The preconception and prenatal diagnostic techniques Act 1994
8. Euthanasia
9. Sodomy
10. Delusions
11. Postmortem appearance and management in cases of snake bite.
12. Types of Hyoid bone fractures

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Run amok
14. Surrogate mother
15. Café coronary
16. Kennedy phenomenon
17. Pseudocyesis
18. Intersex
19. Lucid interval
20. Frigidity
21. Plumbism.
22. Dying declaration

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – II (CBME) Degree Examination - 28-May-2024

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

PATHOLOGY – PAPER I (RS-4)
Q.P. CODE: 1026
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. 40 year old farmer admitted to the hospital with high fever. He gives history of an injury to his left leg resulting in an ulcer 15 days ago. On examination his pulse is 110/min, blood pressure is 70/50 mmHg
    a) What is your diagnosis?
    b) Describe the stages of this condition
    c) Discuss the pathophysiology of the above condition

2. 3 years old female child admitted to paediatric ward with long history of pallor and passing high coloured urine. There is a history of consanguineous marriage among parents. On examination child has pallor, stunted growth, icterus and enlarged spleen.
    a) What is your diagnosis?
    b) Describe the molecular pathogenesis of this condition
    c) Discuss the lab diagnosis of the above condition

SHORT ESSAYS **8 x 5 = 40 Marks**

3. . Pathologic calcification
4. . Arachidonic acid metabolites
5. . Lepromatous leprosy
6. Type I hypersensitivity
7. Mechanism of metastasis
8. Chronic myeloid leukemia
9. Von Willebrand's disease
10. Discuss phagocytosis

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Name three endogenous pigments
12. Fate of primary tuberculosis
13. Advantages of FNAC
14. Fate of thrombus
15. Tumor markers
16. Rickets
17. CSF findings in pyogenic meningitis
18. Stages of ESR
19. Coomb's test
20. Systemic causes for delayed wound healing

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) All of the following are special stains for fat **EXCEPT**
- A. Sudan dyes
- B. PAS
- C. Osmic acid
- D. Oil Red O

21 ii) 30 year old male on pure vegetarian diet presents with listlessness, tingling and numbness in his limbs. On lab evaluation his bone marrow shows presence of megaloblasts. Megaloblasts can be seen in
- A. Iron deficiency anaemia
- B. Haemolytic anaemia
- C. Vit B12 deficiency anemia
- D. Hereditary Spherocytosis

21 iii) The DNA Oncogenic virus implicated in cervical carcinogenesis is
- A. Human papilloma virus
- B. Herpes virus
- C. POX virus
- D. Hepatitis B virus

21 iv) Which of the following disease is X linked recessive inheritance
- A. Sickle cell anemia
- B. Adult polycystic kidney
- C. Haemophilia
- D. Hereditary Spherocytosis

21 v) Which of the following is a tumor suppressor genes
- A. RB
- B. PDGF
- C. RAS
- D. EGF

22 i) Delayed type of hypersensitivity resulting in the formation of a granuloma is typically seen in
- A. Type I hypersensitivity reaction
- B. Type II hypersensitivity reaction
- C. Type III hypersensitivity reaction
- D. Type IV hypersensitivity reaction

22 ii) Which of the following antibodies is likely to identified on laboratory testing in a patient with systemic lupus **erythematosis**
- A. Anti DS DNA
- B. SS-A
- C. SS-B
- D. Jo-1

22 iii) In cases of renal failure on long term hemodialysis which of following type of amyloid is seen
- A. Amyloid light chain (AL)
- B. Amyloid associated protein (AA)
- C. Amyloid beta 2 microglobulin (Abets2m)
- D. Beta amyloid protein (A beta)

22 iv) ESR is raised markedly in
- A. Multiple myeloma
- B. Malaria
- C. Acute myeloblastic leukemia
- D. Haemophilia

22 v) Type of antibodies usually seen in chronic ITP are
- A. Ig A
- B. Ig M
- C. Ig E
- D. Ig G

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – II (CBME) Degree Examination - 30-May-2024

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

PATHOLOGY – PAPER II (RS-4)
Q.P. CODE: 1027
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. A 20 year female with recent history of streptococcal throat infection, presented with multiple joint pain, few subcutaneous nodules and raised C-reactive protein.
   a) What is your diagnosis?
   b) What changes are noted in the heart?
   c) Describe its pathogenesis and microscopic features
   d) What are the late complications?

2. 45 year female patient with abdominal distension and irregular periods. Ultrasound scan report shows right sided ovarian mass.
   a) Classify ovarian tumours
   b) Discuss in detail about the epithelial tumors of ovary

SHORT ESSAYS **8 x 5 = 40 Marks**

3. . Differences between ulcerative colitis and Crohn's disease.
4. . Stages of Lobar Pneumonia.
5. . Etiopathogenesis and complications of Hydronephrosis.
6. Secondary tuberculosis.
7. Diabetic Nephropathy.
8. Chondrosarcoma.
9. Astrocytoma.
10. Benign prostatic hypertrophy.

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Complications of Atherosclerosis.
12. Differences between Nephritic and Nephrotic syndrome.
13. Types of gall stones.
14. Gross features of Bronchiectasis.
15. Define Adenomyosis. Write two mechanisms of adenomyosis
16. Draw microscopic picture of Osteoclastoma.
17. Labelled diagram of Hashimotos thyroiditis.
18. Warthins tumor
19. Rodent ulcer.
20. Three late complications of diabetes mellitus.

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) BCL – 2 is over expressed in which of the following tumors
- A. Renal cell carcinoma
- B. Follicular Lymphoma
- C. Mantel cell lymphoma
- D. Burkitt lymphoma

21 ii) Fatty streaks seen in
- A. Fatty liver
- B. Pancreatitis
- C. Aorta
- D. Breast

21 iii) Signet ring cells seen in
- A. Adenocarcinoma stomach
- B. Seminoma
- C. Wilms Tumour
- D. Astrocytoma

21 iv) Amyloid seen in
- A. Follicular carcinoma Thyroid
- B. Papillary carcinoma Thyroid
- C. Medullary carcinoma Thyroid
- D. Hashimoto's Thyroiditis

21 v) Indian file arrangement of invasive cells seen in
- A. Medullary carcinoma
- B. Lobular carcinoma breast
- C. Lymphoma Breast
- D. Comedo carcinoma Breast

22 i) All are Germ Cell tumors **EXCEPT**
- A. Dysgerminoma
- B. Teratoma
- C. Serous cystadenoma
- D. Embryonal carcinoma

22 ii) Maccallums Patch seen in
- A. Myocardial Infarction
- B. Rheumatic Fever
- C. Subacute Bacterial Endocarditis
- D. Oral cavity

22 iii) Linitis Plastica seen in
- A. Carcinoma colon
- B. Diffuse advanced Gastric Carcinoma
- C. Bronchogenic carcinoma
- D. Carcinoma Oesophagus

22 iv) Sequestrum seen in
- A. Paget's diseases of bone
- B. Osteomyelitis
- C. Osteoclastoma
- D. Aneurysmal bone cyst

22 v) Which of these syndrome is not associated with defective DNA repair
- A. Xeroderma Pigmentosum
- B. Ataxia telangiectasia
- C. Fanconi syndrome
- D. Von-Hippel LINDAU Syndrome

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – II (CBME) Degree Examination - 03-Jun-2024

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

PHARMACOLOGY – PAPER I (RS-4)
Q.P. CODE: 1028
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. Define Drug antagonism. Discuss the different types of drug antagonism with suitable examples.

2. A 75 year old patient presents with defective gait and posture, mask like face and Sialorrhoea. On examination, he had rigidity, tremors and hypokinesia. He was diagnosed to be suffering from Parkinsonism.
   a) Classify Antiparkinsonian drugs with suitable examples
   b) Discuss the Pharmacological actions and adverse effects of Levodopa

SHORT ESSAYS **8 x 5 = 40 Marks**

3. Therapeutic uses and adverse effects of Alpha Blockers
4. Define Bioavailability of a drug. Explain four drug related factors affecting bioavailability
5. Cardiovascular actions of Adrenaline
6. Compare and contrast Physostigmine and Neostigmine
7. Pharmacological actions and adverse effects of Aspirin
8. Inhalational glucocorticoids in Bronchial asthma
9. A 38 year old patient after surgery for fracture femur is given Metoclopramide for antiemetic action.
   a) Explain the rationale of using metoclopramide in this patient.
   b) Write its adverse effects and uses.

10. A 30 year old patient is brought to hospital with delusional beliefs, auditory hallucinations, restlessness, disturbed sleep and inappropriate behaviour. She was diagnosed to be suffering from schizophrenia and prescribed Olanzapine.
    a) Explain the rationale of using Olanzapine in this patient.
    b) Write its advantages over conventional antipsychotics.

SHORT ANSWERS **10 x 3 = 30 Marks**

11. What is therapeutic drug monitoring (TDM)? Write two drugs requiring TDM
12. Rationale of using Atropine in Organophosphorous compound poisoning
13. Rationale of using Morphine in acute pulmonary oedema
14. Write two adverse effects of Phenytoin. Why is phenytoin contraindicated in pregnancy?
15. Write three nondepolarising skeletal muscle relaxants
16. Name two anti-motility drugs. Why are they contraindicated in Shigella dysentery?
17. Write Two advantages and Two disadvantages of selective Cox 2 inhibitors
18. Name three antitussives
19. Explain the concept of Essential medicines (drugs)
20. Write three uses of Calcium Disodium edetate

Rajiv Gandhi University of Health Sciences, Karnataka

Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) An 18 year old female patient is brought to hospital in an unconscious state following accidental drug overdose. Which of the following route is desirable for administering the antidote for this patient?
- A. Oral
- B. Transdermal
- C. Intravenous
- D. Subcutaneous

21 ii) Which of the following is a prodrug?
- A. Hydralazine
- B. Levodopa
- C. Paracetamol
- D. Aspirin

21 iii) Apraclonidine is a congener of clonidine used for
- A. Pain relief
- B. Reducing Blood pressure
- C. Reducing intraocular tension
- D. Reducing blood glucose

21 iv) Atropine produces all the following actions **EXCEPT**
- A. Tachycardia
- B. Dryness of mouth
- C. Mydriasis
- D. Urinary incontinence

21 v) A 8 year old boy was brought by the mother with momentary loss of consciousness. EEG shows spike and wave pattern. Pediatrician made a diagnosis of absence seizures. Which of the following drug is useful for absence seizures?
- A. Phenobarbitone
- B. Sodium Valproate
- C. Phenytoin
- D. Carbamazepine

22 i) Which of the following antipsychotic produces extrapyramidal side effects?
- A. Chlorpromazine
- B. Olanzapine
- C. Quetiapine
- D. Aripiprazole

22 ii) Which antihistaminic drug produces less central nervous system depressant activity?
- A. Diphenhydramine
- B. Pheniramine
- C. Promethazine
- D. Cetrizine

22 iii) Which of the following drug cannot be administered by inhalational route in asthma
- A. Montelukast
- B. Ipratropium bromide
- C. Budesonide
- D. Salbutamol

22 iv) An anti-emetic can be used in a conscious patient suffering from poisoning due to all the following **EXCEPT**
- A. Iron
- B. Diazepam
- C. Kerosene
- D. Paracetamol

22 v) Essential drugs are
- A. Life saving drugs
- B. Inert drugs
- C. Drugs that meet the priority health care needs of the population
- D. Drugs that have no therapeutic use

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – II (CBME) Degree Examination - 05-Jun-2024

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

PHARMACOLOGY – PAPER II (RS-4)
Q.P. CODE: 1029
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. Classify Penicillins. Describe the mechanism of action, adverse effects and therapeutic uses of Benzyl Penicillin
2. A 58 year old known diabetic was brought to hospital with mental confusion, vomiting, pain abdomen and rapid breathing. He had fruit scented breath. His Random blood sugar was 320 mg/dl with ketone bodies in the urine. He was diagnosed to be suffering from Diabetic ketoacidosis.
    a) Outline the management of this patient
    b) Mention the adverse effects of Insulin
    c) Enumerate the therapeutic uses of Insulin

SHORT ESSAYS **8 x 5 = 40 Marks**

3. .Mechanism of action, therapeutic uses and adverse effects of Rifampicin
4. .Therapeutic uses of Glucocorticoids
5. Mechanism of action, Advantages and Disadvantages of Radioactive Iodine
6. Pharmacological actions, Uses and adverse effects of Nifedipine
7. Mechanism of action, therapeutic uses and adverse effects of Vinca Alkaloids
8. Role of Nitroglycerine in the management of Myocardial Infarction
9. A 78 year old patient presents to hospital with pain and swelling in the calf region of right leg. He was bed ridden for 3 months following a surgery. Detailed investigation revealed Deep vein thrombosis. After initial therapy with Heparin, he was discharged with a prescription of Warfarin.
    a) What is the rationale of using Warfarin in this patient?
    b) List the adverse effects and therapeutic uses of Warfarin.
10. A 70 year old male presents to hospital with acute breathlessness. He has pedal oedema, engorged neck and distended abdomen. A diagnosis of heart failure was made. Frusemide was administered to this patient.
    a) Explain the rationale of using frusemide in this patient.
    b) Enumerate its adverse effects and other therapeutic uses.

10 x 3 = 30 Marks

SHORT ANSWERS

11. Mention three uses of Dapsone
12. Rationale of combining Trimethoprim with Sulfamethoxazole
13. Why Tetracyclines are contraindicated in pregnancy?
14. Mention three advantages of Azithromycin over Erythromycin
15. Rationale of using Vancomycin in Pseudomembranous enterocolitis. Write two other uses of Vancomycin.
16. Mention three drugs used in Acne Vulgaris
17. Mention three Advantages of Albendazole over Mebendazole
18. Mention three advantages of Low molecular weight Heparins
19. Write two uses of Enalapril. Why Enalapril is contraindicated in pregnancy?
20. Write three indications for parenteral Iron therapy

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) The following drug improves urine outflow in patients with benign prostatic hypertrophy
- A. Nifedipine
- B. Prazosin
- C. Atenolol
- D. Methyldopa

21 ii) Rebound hypertension on sudden withdrawal of medication is associated with
- A. Hydrochlorothiazide
- B. Prazosin
- C. Clonidine
- D. Lisinopril

21 iii) Antidote for Heparin overdose is
- A. Sodium sulfate
- B. Magnesium sulfate
- C. Protamine sulfate
- D. Copper sulfate

21 iv) Hydrochlorothiazide can cause
- A. Hearing loss
- B. Hyperkalemia
- C. Hypocalcemia
- D. Hyperglycemia

21 v) Rapid Acting Insulin is
- A. Insulin Glargine
- B. Insulin Detemir
- C. Insulin Lispro
- D. Insulin Degludec

22 i) Hypothalamo pituitary-adrenal axis suppression during long-term steroid therapy can be minimised by all the following measures **EXCEPT**
- A. Use of long acting steroids
- B. Use of steroids on alternate days
- C. Use of steroids for shortest duration
- D. Administering entire daily dose in the morning

22 ii) A premature neonate suffering from a respiratory infection received high doses of an antibiotic. Over the next two days his condition worsened, he became dull, stopped feeding, developed abdominal distention, became hypotonic and hypothermic. An ashen gray cyanosis developed. A diagnosis of Gray baby syndrome was made. Which of the following antimicrobial agent is responsible for this neonatal syndrome:
- A. Ampicillin
- B. Chloramphenicol
- C. Erythromycin
- D. Ciprofloxacin

22 iii) In the multidrug therapy of leprosy, Rifampin is given
- A. Daily
- B. On alternate days
- C. Weekly
- D. Monthly

22 iv) Folinic acid is used in the treatment of toxicity due to
- A. Methotrexate
- B. Digoxin
- C. Cyclophosphamide
- D. Iron

22 v) Chloroquine is used in all the following conditions **EXCEPT**
- A. Malaria
- B. Extraintestinal Amoebiasis
- C. Rheumatoid arthritis
- D. Filariasis

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – II (CBME) Degree Examination - 07-Jun-2024

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

MICROBIOLOGY – PAPER I (RS-4)
Q.P. CODE: 1030
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. Three members of a family who attended a gathering in a village complained of passing loose stools about 6 to 10 times per day. On examination all of them had signs of dehydration and stool samples collected appears like rice water
   a) Name the most probable causative bacterial agent
   b) Describe pathogenesis of this condition
   c) Describe laboratory diagnosis of this condition
   d) Outline the measures to manage this outbreak
2. A commercial sex worker presents with intermittent fever, diarrhea and weight loss since two months. On examination she has oral thrush and enlarged lymph nodes in neck and axilla. Laboratory Investigation revealed that, serum was positive for P24 Antigen and her CD4 Count is less than 200 /mm
   a) Diagnose the most probable clinical condition and identify the causative agent of this clinical condition
   b) Describe pathogenesis of this clinical condition
   c) Describe laboratory diagnosis of the underlying primary disease
   d) Outline the medicolegal and ethical requirements that need to be met during laboratory diagnosis of this condition

SHORT ESSAYS **8 x 5 = 40 Marks**

3. Bacterial conjugation and its implications
4. ELISA – Principles, types and applications
5. Delayed type hypersensitivity
6. An Intravenous drug abuser develops fever with chills, myalgia, cardiac murmur. Methicillin Resistant Staphylococci aureus was isolated from Blood culture. Describe pathogenesis and laboratory diagnosis of this condition
7. Laboratory diagnosis of lymphatic filariasis
8. Pathogenesis and laboratory diagnosis of Hepatitis E infection.
9. Superficial mycosis
10. A middle-aged man presents with hypopigmented patches on his both forearms. On examination the lesions were non-scaly and had reduced sensations. Describe laboratory diagnosis of this condition

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Hot air oven – Principle and application
12. Name three differences between exotoxin and endotoxin
13. Major Histocompatibility Complex
14. Differentiate primary and secondary immune response
15. Name the major criteria of modified Jone's criteria
16. Draw a labelled diagram of the diagnostic form of visceral leishmaniasis found in bone marrow smears
17. Name three bacterial causes of food poisoning
18. Laboratory diagnosis of amoebic liver abscess
19. Etiopathogenesis of Actinomycosis
20. Name common infections caused by nonsporing anaerobes

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) Spores are formed in _____ phase of bacterial growth curve
- A. Lag
- B. Log
- C. Stationary
- D. Decline

21 ii) Bacterium having polypeptide capsule is
- A. *Neisseria meningitidis*
- B. *Bacillus anthracis*
- C. *Haemophilus influenzae*
- D. *Klebsiella pneumoniae*

21 iii) Commonest cause of septic arthritis is
- A. *Staphylococcus aureus*
- B. *Coagulase negative Staphylococcus Spp*
- C. *Streptococcus pneumoniae*
- D. *Escherichia coli*

21 iv) Molecular mimicry as a mechanism of autoimmune response is seen in
- A. Rheumatic fever
- B. Rheumatoid arthritis
- C. Systemic lupus erythematosus
- D. Myasthenia gravis

21 v) **NOT** a correct combination is
- A. Autograft – skin grafted to burn area
- B. Allograft – graft from genetically non-identical member of the same species
- C. Isograft – graft from heterozygous twin
- D. Xenograft – graft from different species

22 i) A bridge between innate and acquired immunity is
- A. Complement components
- B. Neutrophils
- C. T lymphocytes
- D. Natural killer cells

22 ii) All of the following are dimorphic fungi **EXCEPT**
- A. *Histoplasma capsulatum*
- B. *Blastomyces dermatitidis*
- C. *Cryptococcus neoformans*
- D. *Sporothrix schenckii*

22 iii) Germ Tube test is positive in which of the following organisms
- A. *C. albicans*
- B. *C. tropicalis*
- C. *C. parapsilosis*
- D. *C. auris*

22 iv) A child aged 6 years vomited a white worm with cylindrical body measuring 20 cm. Parents gave history of passing similar worm in feces a few months ago. Stool examination showed many brown ova. Probable organism is
- A. *Necator americanus*
- B. *Trichuris trichiura*
- C. *Taenia saginata*
- D. *Ascaris lumbricoides*

22 v) True about *Strongyloides stercoralis* is
- A. It can complete the life cycle independent of any host
- B. Infection is acquired by ingestion of embryonated ova
- C. Diagnosis is done by demonstrating ova in stool sample
- D. Commonly produces Loeffler syndrome

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – II (CBME) Degree Examination - 10-Jun-2024

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

MICROBIOLOGY – PAPER II (RS-4)
Q.P. CODE: 1031
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. A lady aged 26 years presented with high grade fever with chills, headache since 4 days. On examination she had neck stiffness and Kernig's sign was positive. CSF gram stain showed gram negative diplococci with adjacent flat surfaces.
    a) Identify the causative agent
    b) Describe the pathogenesis of this condition
    c) Describe laboratory diagnosis of this condition
    d) Suggest methods of prevention

2. An adult man presented with fever, breathlessness, dry cough and loss of smell since 4 days. He had fever, sore throat and running nose in the previous week. RTPCR of nasopharyngeal swab showed presence of N and RdRp genes.
    a) Identify the causative agent
    b) Describe laboratory diagnosis of this condition
    c) Describe methods of prevention
    d) Suggest appropriate management of common biomedical waste generated while caring for this patient

SHORT ESSAYS **8 x 5 = 40 Marks**

3. Pathogenesis and laboratory diagnosis of Japanese encephalitis
4. Laboratory diagnostic strategy of pulmonary tuberculosis as per National Tuberculosis Elimination Program
5. A lady aged 28 years presented with recurrent multiple painful vesicular lesions of external genitalia. Giemsa-stained smear of the base of the lesions showed multinucleated giant cells with faceted nuclei. Describe pathogenesis and laboratory diagnosis of this condition
6. Pathogenesis and laboratory diagnosis of Leptospirosis
7. Clinical features, complications and laboratory diagnosis of Dengue
8. Pathogenesis and laboratory diagnosis of Hydatid cyst disease
9. Risk factors and prevention of CAUTI
10. Oncogenic viruses

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Describe the reasons for epidemics and pandemics of influenza
12. Diagnosis of neurocysticercosis
13. Morphology of *Corynebacterium diphtheriae*
14. Name common infections caused by *Aspergillus Spp*
15. Significant bacteriuria
16. Laboratory diagnosis of lymphogranuloma venereum
17. Draw a labelled diagram of *Trichomonas vaginalis*
18. Name three organisms causing nongonococcal urethritis
19. Malignant pustule
20. Describe the ethical considerations while testing for HIV

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) All the following are effective in preventing pharyngoconjunctival fever caused by Adenovirus **EXCEPT**
- E. Effective hand washing
- F. 70% ethanol to disinfect environmental surfaces
- G. Chlorination of swimming pools and waste water
- H. Strict asepsis during eye examinations

21 ii) True about tropical pulmonary eosinophilia is
- E. Microfilariae are not detected in peripheral smear
- F. Caused by migrating larvae of Ascaris lumbricoides
- G. Hyaline septate acutely-branching hyphae are seen in sputum
- H. Productive cough with blood-tinged purulent sputum is characteristic

21 iii) An immunocompromised individual has dry cough and breathlessness. Gomori's methenamine silver stain of bronchoalveolar lavage showed black structures resembling crushed ping-pong balls. The probable causative agent is
- E. *Pneumocystis jirovecii*
- F. *Talaromyces marneffei*
- G. *Histoplasma capsulatum*
- H. *Blastomyces dermatitidis*

21 iv) An adult man has fever and purulent urethral discharge. Gram stain of the discharge showed gram negative diplococci with adjacent concave surfaces. Treatment of choice is
- E. Ceftriaxone
- F. Azithromycin
- G. Doxycycline
- H. Acyclovir

21 v) True about standard tests for syphilis is
- E. Detect antibodies to treponemal antigens
- F. Can not differentiate recent and past infection
- G. Positive results irrespective of titers are significant
- H. Help in assessing response to treatment

22 i) A lady has multiple painless dome-shaped, pink pearly wart-like umbilicated lesions, with a dimple at the center in perigenital area. Most useful test in this case is
- E. Demonstration of Molluscum bodies in biopsied lesion
- F. Leishman stained smear of the lesion to show Guarneri bodies
- G. Iodine-stained smear of lesion to demonstrate inclusion bodies
- H. Gram stain of lesion to show gram negative bacilli with safety-pin appearance

22 ii) Urine wet mount of a man with hematuria showed oval and elongated, non-operculated eggs measuring 150 × 50 µm, with a terminal spine. It is suggestive of
- E. *Schistosoma haematobium*
- F. *Schistosoma mansoni*
- G. *Schistosoma japonicum*
- H. *Schistosoma urealyticum*

22 iii) True about Kyasanur Forest Disease is
- E. Endemic in central African countries
- F. Transmitted by soft tick
- G. Monkeys are amplifier hosts
- H. Encephalitis is the characteristic feature

22 iv) True about human infection by *Taenia solium* is that
- E. Man can be definitive or intermediate host
- F. Non-bile-stained eggs
- G. Scolex is quadrangular without rostellum and hooklets
- H. Adult worm has cylindrical body

22 v) True about infections caused by zoophilic dermatophytes is
- E. Commonest organism is *Trichophyton rubrum*
- F. Mild symptoms
- G. Resolve more quickly
- H. Can be grown only by using experimental animals

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MBBS (Phase - II) Degree Examination – 09-Aug-2024

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

PATHOLOGY - PAPER I (RS3)
QP Code: 1081

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAYS **2 x 10 = 20 Marks**

1. Classify shock. Discuss in detail the etiopathogenesis of septic shock.
2. Classify acute leukemia. Discuss acute myeloid leukemia and its sub types.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Discuss in brief classification of Leprosy.
4. Discuss reversible and irreversible cell injury with example.
5. Discuss chemical carcinogenesis.
6. Write the cerebrospinal fluid findings in Pyogenic and Viral Meningitis.
7. Klinefelter syndrome.
8. Name four blood group systems. Discuss briefly Bombay blood group.
9. Vascular events in acute inflammation.
10. Discuss sickle cell anemia.
11. Coomb's test.
12. Discuss etiopathogenesis of Chronic Myeloid Leukemia.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Name three complications of Falciparum malaria.
14. Three stains used to demonstrate Fat.
15. Name three health hazards of chronic alcoholism.
16. Name the pre blood transfusion screening tests done in Blood Bank.
17. What is Bence Jones protein and its cause in urine.
18. Name three Arachidonic acid metabolites.
19. Define infarction with four example.
20. Three beneficial effects of Edema and why?
21. Hazards of ultraviolet rays radiation.
22. Indication for bone marrow aspiration and why?

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MBBS (Phase - II) Degree Examination - 12-Aug-2024

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

PATHOLOGY – PAPER - II (RS-3)
Q.P. CODE: 1082

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. A 45 year old Male presented with few episodes of hematemesis. History revealed heavy alcohol consumption for the past 10 years. Clinical examination shows ascites and spleenomegaly.
    a) What is the probable diagnosis and why?
    b) Describe in detail about etiopathogenesis and its complications.

2. Describe etiopathogenesis of Nephritic Syndrome. Explain the morphological features and complications of post infectious Glomerulonephritis.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Etiopathogenesis of Bronchial Asthma.
4. Pathogenesis and complications of Diabetes Mellitus.
5. Classify germ cell tumors of ovary and describe the morphology of any one.
6. Medullary carcinoma of Thyroid.
7. Morphology of renal cell carcinoma.
8. Differences between ulcerative colitis and Crohns disease.
9. Pathogenesis and morphology of Hashimotos thyroiditis.
10. Explain various cardiac vegetations with diagram.
11. Morphology of Osteomyelitis.
12. Medulloblastoma.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Acute respiratory distress syndrome.
14. Morphology of pleomorphic adenoma.
15. Three causes for massive spleenomegaly.
16. Linitis plastica.
17. Morphological types of Hodgkins lymphoma.
18. Schwannoma.
19. Microscopic diagrams of malignant melanoma.
20. Three microscopic subtypes of Osteosarcoma.
21. Morphological types of Cardiomyopathies.
22. Complications of Bronchogenic carcinoma.

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MBBS (Phase - II) Degree Examination - 14-Aug-2024

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

MICROBIOLOGY – PAPER I (RS-3)
Q.P. CODE: 1083

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. Define **sterilization** and classify **methods of** sterilization. Discuss in detail moist heat sterilization
2. a) What is Bio-medical waste (BMW)?
   b) Why BMW management is important?
   c) How BMW are Segregated, collected and disposed?
   d) Add a note on Needle stick injury management

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Enrichment media
4. T.S.I media
5. IgG antibody
6. Louis Pasteur
7. Differences between active and passive immunity
8. What is bacterial growth curve? Give details about factors affecting growth
9. Classify **S**treptococci and add a note on ASO test
10. Write about sample collection and **laboratory** diagnosis of pulmonary tuberculosis
11. L**aboratory** diagnosis of gonorrhea
12. Coagulase test

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Name three non motile bacteria
14. Name three precipitation tests
15. Classification of Shigella
16. Widal test
17. Name three anaerobes
18. Name three bacterial vaccines
19. Transport media
20. Plasmid
21. Name three uses of hot air oven
22. Clostridium tetani

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MBBS (Phase - II) Degree Examination - 17-Aug-2024

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

MICROBIOLOGY - PAPER II (RS-3)
QP CODE: 1084

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. A 45 years old female has attended he Gynac op with c/o Mucopurulient vaginal discharge or the past one week. In gram staining of cervical swab, kidney shaped Gram negative coci are seen. Answer the following question
    a) Name the bacteria causing this infection
    b) Name bacterial sexually transmitted infections
    c) Discuss the lab diagnosis of this infection
2. Define PUO and describe the lab diagnosis of PUO in detail

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Write about lab diagnosis of hepatitis B virus
4. Write about the lab diagnosis of mycetoma
5. Write short notes on widal test
6. Poliomyelitis
7. Write the clinical feature and lab diagnosis of dengue infection
8. Write about the clinical features and lab diagnoses of COVID infection
9. Cultivation of viruses
10. What are interferons, mode of action and use
11. Herpes simplex viruses
12. Inclusion bodies

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Molluscum contagiosum
14. Name three RNA viruses
15. Name three DNA viruses
16. Name three viral vaccines
17. Name three dimorphic fungi
18. Name three culture media used for fungal culture
19. Antigenic shift and antigenic drift
20. Complications of falciparum malaria
21. Name three cestodes
22. Name three viral fevers transmitted by mosquitoes

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M.B.B.S. PHASE II Degree Examination – 21-Aug-2024

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

PHARMACOLOGY - PAPER -II (RS3)
QP Code: 1086

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAYS **2 x 10 = 20 Marks**

1. Classify Glucocorticoids. Write the uses and adverse effects of Glucocorticoids.
2. Classify antitubercular drugs. Explain mechanism of action, therapeutic uses and adverse effect Rifampicin.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Sufonylureas – Mechanism of action and uses.
4. Carbimazole.
5. Methotrexate.
6. Salbutamol.
7. Proton pump inhibitors.
8. Second generation antihistaminics.
9. Metronidazole.
10. Diethyl Carbamazine (DEC).
11. Chelating agents.
12. Dapsone.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Name three antifungal drugs.
14. Mast cell stabilizers.
15. List three drugs used in Migraine therapy.
16. Name three killed vaccines.
17. Uses and adverse effect of Allopurinol.
18. Rationale of combining amoxicillin and Clavulanic acid.
19. Three uses of Vitamin C.
20. Osmotic laxatives.
21. Paracetamol poisoning.
22. List three antiseptics.

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MBBS PHASE II Degree Examination – 23-Aug-2024

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

FORENSIC MEDICINE (RS3)
QP Code: 1087

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAYS **2 x 10 = 20 Marks**

1. Classify Asphyxiants. Signs and Symptoms of Carbon monoxide poisoning and Post Mortem findings.

2. Classification of Burns. Causes of death in Burns and differences between Antemortem and Post Mortem Burns.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Sexual asphyxias.
4. Vagal Inhibition.
5. Consent.
6. Hazards of Blood Transfusion.
7. Difference between Feigned Mental Illness and Real Mental Illness.
8. Difference between Human Hair and Animal Hair.
9. Professional Negligence.
10. Adipocere.
11. Testamentary Capacity.
12. Physiological antidotes.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Transvestism.
14. Foamy Liver.
15. Suspended animation.
16. Phossy Jaw.
17. Delusion.
18. Delirium Tremens.
19. Summons.
20. Viability.
21. Medico-Legal Importance of Pregnancy.
22. Blood grouping in Disputed paternity.

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MBBS Phase – II (CBME) Degree Examination - 02-Dec-2024

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

PATHOLOGY – PAPER I (RS-4)
Q.P. CODE: 1026
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. A 25 years male, with complains of Bee string on the face, develop severe pain and swelling within 10 minutes; brought to emergency room in confused state, with difficulty in breathing and abdominal cramps.
   a) What is the diagnosis related to this reaction?
   b) Write in detail about the pathogenesis, morphology and evolution of this reaction.

2. A 2 years female child, presented with moderate pallor and jaundice. Clinical history of multiple blood transfusion and peripheral blood smear show microcytic hypochromic anemia. On examination hepato-splenomegaly present
   a) What is your diagnosis?
   b) Discuss the pathogenesis of this disease with labelled diagram
   c) What relevant investigation is needed to establish the diagnosis?

SHORT ESSAYS **8 x 5 = 40 Marks**

3. Turner's syndrome
4. Difference between Hodgkin's lymphoma and Non Hodgkin's lymphoma
5. Leukemoid reaction
6. Discuss the vascular events in inflammation
7. CSF in Septic meningitis.
8. Define Paraneoplastic syndromes with an example for each of the underlying neoplasm causing it
9. Hemophilia A
10. Microbial oncogenesis

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Define metaplasia with examples
12. Fate of a thrombus
13. Define **apoptosis** with examples
14. Chemotaxis.
15. What is FNAC?
16. Romanowsky Stains
17. Bombay Blood group
18. Vitamin C deficiency
19. Ghons complex
20. Stains to demonstrate amyloid

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) Anticoagulant of choice for coagulation studies is
- A. Heparin
- B. EDTA
- C. Trisodium citrate
- D. Double oxalate

21 ii) Actin and Myosin proteins are found in
- A. Microtubules
- B. Microfilaments
- C. Intermediate filaments
- D. Ribosomes

21 iii) Which one of the following cytokines is involved in tissue repair and fibrosis
- A. Tissue necrosis factor
- B. Transforming growth factor β
- C. Interleukin - 1
- D. Interferon

21 iv) The characteristic feature of Langerhans cell is the presence of
- A. Birbeck granules
- B. Auer rods
- C. Owl-eye nuclei
- D. CD15 positive histiocytes

21 v) Sickle cell trait is protective against
- A. Filaria
- B. Falciparum Malaria
- C. Leishmania
- D. Trypanosmiasis

22 i) NK Cell inhibitory receptors recognize
- A. Class I MHC molecules
- B. Class II MHC molecules
- C. Toll like receptors
- D. IFN-γ

22 ii) Familial hypercholesterolemia is caused by mutations in the gene encoding the receptor for
- A. HDL
- B. VLDL
- C. LDL
- D. Chylomicrons

22 iii) Immune Hydrops fetalis is due to
- A. Parvovirus B19
- B. Turner syndrome
- C. Monozygous Twin pregnancies
- D. Rh incompatibility

22 iv) The cells associated with formation of chloroma is
- A. Erythroblast
- B. Immunoblasts
- C. Myeloblast
- D. Lymphoblasts

22 v) The subtype of Hodgkin lymphoma that shows lacunar cells and collagen bands is
- A. Nodular lymphocyte predominant
- B. Lymphocyte depleted
- C. Mixed cellularity
- D. Nodular sclerosis

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MBBS Phase – II (CBME) Degree Examination - 04-Dec-2024

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

PATHOLOGY – PAPER II (RS-4)
Q.P. CODE: 1027
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. 60 year old chronic alcoholic reports to emergency room with one bout of hematemesis. On examination the patient is drowsy and not oriented. Icterus is present. Per abdominal examination reveals Ascites.
   a) What is your diagnosis?
   b) Describe the gross and microscopy of the organ involved
   c) List the complications of the above condition

2. 55 year old male presented history of chest pain of acute onset. Pain radiating to left shoulder and arm. ECG shows ST segment, elevation and T wave inversion.
   a) What is your diagnosis?
   b) Describe the etiopathogenesis of this condition
   c) What are the immediate complications?

SHORT ESSAYS **8 x 5 = 40 Marks**

3. .Tabulate differences between Crohn's disease and ulcerative colitis
4. .Discuss pathogenesis and morphology of Bronchiectasis
5. .Chronic glomerulonephritis
6. Hydatidiform mole
7. Morphology of malignant melanoma
8. Papillary thyroid carcinoma
9. Prognostic factors in breast cancer
10. Aortic dissection

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Classify gall stones
12. Multicystic renal dysplasia
13. Premalignant lesions of penis
14. Endometriosis
15. Microscopy of pleomorphic adenoma
16. Renal lesions in diabetes mellitus
17. Labelled microscopic diagram of osteosarcoma
18. Complications of Lobar pneumonia
19. Labelled microscopic diagram of Schwannoma
20. Tetralogy of fallot

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) Atherosclerosis is predominantly a disease of
- A. Intima
- B. Media
- C. Adventitia
- D. Entire wall

21 ii) Most common congenital anomaly of heart is
- A. VSD
- B. ASD
- C. PDA
- D. Tetralogy of fallot

21 iii) Serum Ig E levels are elevated in all **EXCEPT**
- A. Intrinsic bronchial asthma
- B. Extrinsic bronchial asthma
- C. Bronchopulmonary Aspergillosis
- D. Tuberculosis of lungs

21 iv) Barrett's oesophagus predisposes to development of
- A. Reflux oesophagitis
- B. Oesophageal varices
- C. Squamous cell carcinoma
- D. Adenocarcinoma

21 v) Acute viral hepatitis by the following hepatotropic virus is characterized by fatty change in the liver
- A. HAV
- B. HBV
- C. HCV
- D. HDV

22 i) The most frequent form of primary glomerular disease in children is
- A. Minimal change disease
- B. Acute glomerulonephritis
- C. Membranous GN
- D. Membranoproliferative GN

22 ii) The following type of carcinoma of breast is characterized by Indian file pattern
- A. Infiltrating duct cell carcinoma
- B. Invasive lobular carcinoma
- C. Medullary carcinoma
- D. Tubular carcinoma

22 iii) The most aggressive ovarian germ cell tumor is
- A. Malignant teratoma
- B. Embryonal carcinoma
- C. Endodermal sinus tumor
- D. Dysgerminoma

22 iv) All are immunohistochemical stains for melanoma **EXCEPT**
- A. HMB 45
- B. S 100
- C. Melan A
- D. SMA

22 v) Paget's disease of bone has following features **EXCEPT**
- A. Affects older age past 50 years
- B. Elevation of serum alkaline phosphatase
- C. There is generally hypocalcemia
- D. Role of virus in etiology

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MBBS Phase – II (CBME) Degree Examination - 09-Dec-2024

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

PHARMACOLOGY – PAPER II (RS-4)
Q.P. CODE: 1029
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. a) Enlist different groups of Semisynthetic Penicillins giving one example for each
   b) Write the mechanism of action, uses and adverse effects of Amoxicillin

2. A 14 year old thinly built boy presented with polydipsia, polyphagia, polyuria, fatigue and weakness. His Fasting blood Sugar was 198 mg/dl, Post prandial blood sugar was 225 mg/dl, HbA1c was 9%. He is diagnosed to be suffering from Insulin dependent diabetes mellitus.
   a) Classify Insulin preparations based on their duration of action
   b) Discuss the Uses and adverse effects of Insulin

SHORT ESSAYS **8 x 5 = 40 Marks**

3. Mechanism of action, advantages and adverse effects of Angiotensin converting enzyme inhibitors (ACE inhibitors)
4. .Enumerate the advantages of Low molecular weight heparins
5. Compare and contrast Propylthiouracil and Carbimazole
6. A surgeon sustained a needle stick injury while operating, following which, the patient was tested for HIV which was reported as positive.
   a) Mention one drug regimen used for post exposure prophylaxis of HIV infection
   b) What is the time limit to initiate therapy?
7. Mechanism of action, uses and adverse effects of Methotrexate
8. A 65 year old patient admitted with Myocardial infarction complains of breathlessness, worse on lying down, cough with blood tinged sputum. The physician made a diagnosis of acute pulmonary oedema and decided to administer Furosemide. Describe the mechanism of action, uses and adverse effects Furosemide
9. Mechanism of action and uses of Digoxin
10. Adverse effects and contraindications of Oral contraceptive pills

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Name Three Oral Iron preparations
12. Mention the advantages of Liposomal Amphotericin B preparation
13. Write two uses of tetracyclines. Why tetracyclines are contraindicated in young children?
14. Mention two adverse effects of INH? Rationale of combining INH with pyridoxine?
15. Mention three uses of Chloroquine other than malaria.
16. Name three fat soluble vitamins.
17. Name two statins. Explain why is it beneficial to take statins in the Night?
18. Write Three advantages of Azithromycin over Erythromycin?
19. Rationale of using Nitrates in Cyanide poisoning
20. Mention three drugs used in Lepra reactions.

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Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) A woman in the 28th week of pregnancy has developed pregnancy induced hypertension. Her blood pressure is150/100 mm Hg. Select the most appropriate antihypertensive drug for her
- A. Furosemide
- B. Methyldopa
- C. Propranolol
- D. Captopril

21 ii) Which of the following is an Inodilator used in Heart failure?
- A. Dobutamine
- B. Milrinone
- C. Ephedrine
- D. Phenylephrine

21 iii) Diuretics are suitable antihypertensives in patients with coexisting
- A. Gout
- B. Dyslipidemia
- C. Isolated systolic Hypertension
- D. Pregnancy induced Hypertension

21 iv) Which of the following is a non-cardiac use of Nifedipine
- A. Tocolytic
- B. Glaucoma
- C. Thyroid storm
- D. Essential tremor

21 v) Drug used for delaying labour is
- A. Ergometrine
- B. Ritodrine
- C. Oxytocin
- D. Propranolol

22 i) Bisphosphonates are indicated in the following condition
- A. Pemphigus
- B. Epilepsy
- C. Steven's Johnson syndrome
- D. Osteoporosis

22 ii) Which of the following inhibits bacterial protein synthesis?
- A. Penicillins
- B. Erythromycin
- C. Cephalosporins
- D. Vancomycin

22 iii) All the following antibiotics are obtained from fungi **EXCEPT**
- A. Penicillin
- B. Cephalosporin
- C. Griseofulvin
- D. Colistin

22 iv) Which of the following Aminoglycoside is a first line anti-tubercular drug
- A. Kanamycin
- B. Gentamicin
- C. Streptomycin
- D. Netilmycin

22 v) Anti-cancer drug that causes disruption of mitotic spindle
- A. 6-Mercaptopurine
- B. Cisplatin
- C. Methotrexate
- D. Vincristine

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MBBS Phase – II (CBME) Degree Examination - 11-Dec-2024

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

MICROBIOLOGY – PAPER I (RS-4)
Q.P. CODE: 1030
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS **2 x 10 = 20 Marks**

1. A 9 year old boy from an overcrowded colony presented to the paediatric emergency department during monsoons with complaints of profuse and frequent watery diarrhoea since the previous day, accompanied by 2-3 episodes of vomiting. On examination, he was found to be moderately dehydrated. The stool on gross examination had a characteristic 'Rice water' appearance.
   a. What is the probable etiological diagnosis?
   b. Discuss in detail epidemiology and pathogenesis of the above condition
   c. Add a note on laboratory diagnosis

2. A 30 year old young adult with history of multiple sex partners is admitted with complaints of unexplained fever, weight loss, persistent diarrhoea and generalized lymphadenopathy for past 6 months.
   a) What is the probable diagnosis?
   b) Discuss the pathogenesis and laboratory diagnosis of the above condition
   c) What are the preventive measures for the above infection?

SHORT ESSAYS **8 x 5 = 40 Marks**

3. Describe tuberculin type of delayed hypersensitivity.
4. Describe classes of major histocompatibility complex and their role in Immunity.
5. **A child presents with vesicular rashes. Rashes are bilateral, diffuse and centripetal in distribution. Fever appears with each crop of eruption. What is the probable clinical diagnosis & discuss the prevention of this infection**
6. Differentiate eumycotic mycetoma from actinomycotic mycetoma
7. Sequence of events that occur following entry of quadri-nucleate cyst of *Entamoeba histolytica* into the gut
8. **Describe the pathogenesis and the laboratory diagnosis of lepromatous leprosy.**

   Or

   Outline the laboratory diagnosis of lepromatous leprosy and mention the interpretation of slit smear examination.

9. Diarrheagenic *Escherichia coli*
10. Describe the differences between resistance acquired by mutation and transferrable drug resistance

SHORT ANSWERS **10 x 3 = 30 Marks**

11. Morphological classification of fungi with examples
12. Name three bacterial causes of food poisoning
13. Name three tests to differentiate *Staphylococcus aureus* from *Staphylococcus epidermidis*
    Or
    Name three infections produced by *Staphylococcus aureus*.
14. What is occult filariasis?

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15. Name three opportunistic sporozoa that cause diarrhea
16. Name three non-albicans species of Candida
17. **List three Complications of falciparum malaria**
18. Type and schedule of Hepatitis B vaccine
19. What are sequestered antigens? Give examples
20. List differences between active immunity and passive Immunity

Multiple Choice Questions **10 x 1 = 10 Marks**

21 i) Which of the cells are not associated with immune mechanisms?
- A. Basophils
- B. Dendritic cells
- C. Mast cells
- D. Epithelial cells

21 ii) Tinea versicolor is caused by
- A. *Candida albicans*
- B. *Trichophyton rubrum*
- C. *Trichophyton violaceum*
- D. *Malassezia furfur*

21 iii) False statement about dermatophytes
- A. Fungi that affect the keratinized layer of the skin
- B. Fungi affecting hair and nail
- C. They may be geophilic
- D. They do not grow at room temperature

21 iv) Weil Felix reaction is based on
- A. Auto specificity
- B. Iso specificity
- C. Species specificity
- D. Heterogenic specificity

21 v) All of these are antigen presenting cells **EXCEPT**
- A. T cells
- B. B cells
- C. Dendritic cells
- D. Macrophage

22 i) During which of the following phases bacteria are most susceptible to antibiotics?
- A. Lag Phase
- B. Log phase
- C. Stationary phase
- D. Phase of decline

22 ii) Who is the father of antiseptic surgery
- A. Robert Koch
- B. Paul Ehrlich
- C. Joseph Lister
- D. Alexander Fleming

22 iii) During first week of enteric fever ,salmonellae can be isolated from all **EXCEPT**
- A. Bone marrow
- B. Blood
- C. Duodenal aspirate
- D. Urine sample

22 iv) Babesiosis is transmitted by bite of
- A. Anopheles mosquito
- B. Sandfly
- C. Mite
- D. Tick

22 v) Causative agent of Calabar swelling is

A. *Dracunculus medinensis*
B. *Wuchereria bancrofti*
C. *Brugiya malayi*
D. *Loa loa*

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