

**MBBS PHASE – II
(CBME)
DEGREE EXAMINATION – FEBRUARY 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 63-year old male presents to the emergency department with complaints of cough/shortness of breath, loss of appetite & weight in one month and even complains of one episode of hemoptysis 3 days back. He also admits to evening rise of temperature followed by sweating for the past few weeks. The ZN stain of sputum shows Acid fast bacilli. a) Classify the drugs effective in the above condition with relevant examples in each class. b) Discuss the MOA and adverse effects of Rifampicin. c) Explain treatment regimens for pulmonary TB presumed to be drug sensitive. | (3+4+3=10) |
| 3. Classify drugs used in the treatment of osteoporosis. Write the MOA, therapeutic uses and adverse effects of bisphosphonates. | (4+2+2+2) |
| SHORT ESSAY QUESTIONS: | 9 X 5 = 45 |
| 4. Discuss in brief about drugs used in filariasis and their side effects. | |
| 5. Enumerate Azole antifungals with their therapeutic uses. | |
| 6. Discuss the role of immunosuppressants in organ transplantation. | |
| 7. Discuss the drug therapy of Migraine | |
| 8. Describe the role of estrogen in postmenopausal HRT. | |
| 9. Describe the pharmacological management of thyroid storm. | |
| 10. Discuss the mechanism of action and uses of Metoclopramide. | |
| 11. Explain the mechanism of action of different antitussives along with examples. | |
| 12. Discuss the uses and adverse effects of glucocorticoids as immunosuppressants. | |
| SHORT ANSWER QUESTIONS: | 5 X 3 = 15 |
| 13. Give Pharmacological basis / reasons for the following statement. Chloroquine used in Rheumatoid arthritis. | |
| 14. Rationale of using triple drug regimen in peptic ulcer. | |
| 15. Explain Prophylactic use of sodium cromoglycate in asthma. | |
| 16. Enumerate <u>three</u> live attenuated vaccines. | |
| 17. Discuss the role of non-maleficence as a guiding principle in patient care. | |

MULTIPLE CHOICE QUESTIONS

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|---|-----------------------------|
| Course: MBBS Phase-II (CBME), February 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. Currently, the drug of choice for empiric treatment of typhoid fever is
(A) Chloramphenicol (B) Cotrimoxazole
(C) Ciprofloxacin (D) Ampicillin
2. Cilastatin is combined with Imipenem because
(A) Cilastatin, a reversible inhibitor of dehydropeptidase I and prevents rapid hydrolysis of imipenem
(B) Matched pharmacokinetics with imipenem (t-half of both is 1 hour)
(C) Has proved effective in a wide range of serious hospital-acquired respiratory, urinary, abdominal, pelvic, skin and soft tissue infections
(D) All of the above
3. Tetracyclines inhibit protein synthesis by
(A) Inhibition of initiation and misreading of mRNA (B) Binding to 30 S subunit and inhibiting the binding of aminoacyl-tRNA to A site
(C) Inhibiting peptidyl transferase activity (D) Inhibiting translocation
4. Fluroquinolone with least oral bioavailability is
(A) Norfloxacin (B) Ciprofloxacin
(C) Levofloxacin (D) Ofloxacin
5. Drug used for acute paracetamol poisoning is
(A) Ketotifen (B) Benzoyl salicylate
(C) Protamine sulphate (D) N-acetylcysteine
6. Which one of the following is an uricosuric drug?
(A) Allopurinol (B) Probenecid
(C) Indomethacin (D) Aspirin
7. TNF-alpha inhibitors should not be used in:
(A) Rheumatoid arthritis with HIV infection (B) Rheumatoid arthritis with hepatitis B
(C) Rheumatoid arthritis with hepatitis C (D) Rheumatoid arthritis with pulmonary fibrosis
8. Etanercept used in rheumatoid arthritis acts by the inhibition of
(A) TNF alpha (B) TFG beta
(C) IL-2 (D) IL-6
9. Mechanism of action of propylthiouracil in hyperthyroidism is
(A) Inhibition of organification of iodine (B) Inhibition of oxidation of iodine
(C) Inhibition of coupling of two DIT residues (D) All of the above
10. Glipizide differs from chlorpropamide in that it
(A) Is more potent (B) Is longer acting
(C) Does not lower blood sugar in nondiabetic subjects (D) Is less prone to cause hypoglycemic reaction

11. Fastest symptomatic relief as well as highest healing rates in reflux esophagitis are obtained with
(A) Prokinetic drugs (B) H₂ receptor blockers
(C) Proton pump inhibitors (D) Sodium alginate
12. Apart from diarrhoea, oral rehydration solution has been employed in the following conditions **EXCEPT**
(A) Severe vomiting (B) Burn cases
(C) Heat stroke (D) Post surgical
13. All of the following drugs are used in acute bronchial asthma except
(A) Salbutamol (B) Ipratropium
(C) Montelukast (D) Hydrocortisone
14. Which of the following is NOT a bronchodilator
(A) Ipratropium bromide (B) Theophylline
(C) Formoterol (D) Sodium cromoglycate
15. Which metabolic abnormality is caused by cyclosporine?
(A) Hyperkalemia (B) Hypokalemia
(C) Hypercalcemia (D) Hypocalcemia
16. Calamine powder contains,
(A) Salicylic acid (B) Benzoic acid
(C) Mercuric chloride (D) Ferric oxide
17. Which of the following is a calcineurin inhibitor?
(A) Cyclophosphamide (B) Cycloserine
(C) Cyclosporine (D) Cytarabine
18. Bevacizumab is used in
(A) Diabetic retinopathy (B) Glaucoma
(C) Diabetic nephropathy (D) Neuropathy
19. The following antitussive is present in opium but has no analgesic or addicting properties
(A) Noscapine (B) Codeine
(C) Pholcodeine (D) Ethylmorphine
20. Therapeutic range of theophylline is
(A) 10-20 mg/L (B) 5-15 mg/L
(C) 1-5 mg/L (D) 20-30 mg/L

**MBBS PHASE – II
DEGREE EXAMINATION – FEBRUARY 2024**

Time: 3 Hours

Max. Marks: 100

**PHARMACOLOGY
PAPER – II**

Q.P. Code: 1007

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

| Question Number | Marks |
|---|--------------------|
| 1. M.C.Q. | 25 X 1 = 25 |
| LONG ESSAY QUESTIONS: | 2 X 10 = 20 |
| 2. Classify fluoroquinolones. Explain the mechanism of action, therapeutic uses and adverse effects of ciprofloxacin. | |
| 3. Classify analgesic drugs. State mechanism of action, therapeutic uses and adverse drug reactions of NSAIDs. | |
| SHORT ESSAY QUESTIONS: | 8 X 5 = 40 |
| 4. Discuss uses and adverse effects of Rifampicin. | |
| 5. Discuss the mechanism of action, uses and adverse effects of Cotrimoxazole. | |
| 6. Discuss Multi-drug therapy regimen in leprosy. | |
| 7. Enumerate Urinary antiseptics and write their uses. | |
| 8. Discuss the management of Thyrotoxicosis. | |
| 9. Write the Mechanism of action and uses Bisphosphonate. | |
| 10. Discuss the uses, complications and contraindications of spinal anaesthesia. | |
| 11. Discuss the therapeutic uses and adverse effects of ergot alkaloids. | |
| SHORT ANSWER QUESTIONS: | 5 X 3 = 15 |
| 12. Enumerate uses and adverse effects of Chloroquine. | |
| 13. Enumerate comparative features of tetracyclines. | |
| 14. Mention <u>six</u> non contraceptive health benefits of contraceptives. | |
| 15. What is the rationale of using low dose of Aspirin in post myocardial infarction? | |
| 16. Enumerate uses of Bisacodyl. | |

MULTIPLE CHOICE QUESTIONS

| | |
|---|-----------------------------|
| Course: MBBS Phase-II, February 2024 | Max. Marks: 25 Marks |
| Subject : Pharmacology Paper-II, QP Code: 1007 | Time: 30 Minutes |

Instructions:

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

1. All the following are known as eicosanoids except
(A) Thromboxanes (B) Leukotrienes
(C) Leucocytes (D) Prostaglandins
2. The isoenzyme cyclooxygenase-2 (COX-2) is expressed constitutively at the following site
(A) Gastric mucosa (B) Neutrophils
(C) Blood platelets (D) Juxtaglomerular apparatus
3. Select the antibiotic that has a high therapeutic index
(A) Streptomycin (B) Doxycycline
(C) Cephalexin (D) Vancomycin
4. Nalidixic acid is primarily active against following organisms
(A) Cocci (B) Bacilli
(C) Gram positive bacteria (D) Gram negative bacteria
5. Accidental intravenous injection of procaine penicillin produces
(A) CNS depression (B) Hallucinations and convulsions
(C) Nausea (D) None of the above
6. Most common antibiotic implicated in causing interstitial nephritis
(A) Methicillin (B) Mezlocillin
(C) Ampicillin (D) Tazobactam
7. Which of the following statement about Penicillin G is true?
(A) It is commonly administered orally (B) It has a broad spectrum of antibacterial activity
(C) It can be used for the treatment rat bite fever (D) Concomitant probenecid decreases its duration of action
8. Which of the following neoplastic diseases is almost curable by chemotherapy?
(A) Bronchogenic carcinoma (B) Choriocarcinoma
(C) Malignant melanoma (D) Colorectal carcinoma
9. Select the cell cycle nonspecific antineoplastic drug
(A) Vincristine (B) Bleomycin
(C) Methotrexate (D) 5-Fluorouracil
10. Of the following is an anabolic steroid
(A) Methyltestosterone (B) Fluoxymesterone
(C) Nandrolone (D) Danazol
11. Of the following is a synthetic estrogen
(A) Estrone (B) Estriol
(C) Estradiol (D) Diethylstilbestrol

12. Trapping of iodide by the following organ/organs is enhanced by thyrotropin:
 (A) Thyroid (B) Salivary gland
 (C) Placenta (D) All of the above
13. Bone resorption is accelerated by
 (A) Estrogens (B) Parathormone
 (C) Bisphosphonates (D) Calcitonin
14. Bromocriptine is useful in all except
 (A) Parkinsonism (B) Prolactinoma
 (C) Endogenous depression (D) Infertility
15. The physical half-life of radioactive I 131 is
 (A) 8 hours (B) 8 days
 (C) 16 days (D) 60 days
16. Of the following drugs is taken during the first part of the meal for the purpose of delaying absorption of dietary carbohydrates is
 (A) Acarbose (B) Glipizide
 (C) Nateglinide (D) Pioglitazone
17. Of the following steroids preferred in high dose intravenous pulse therapy
 (A) Cortisone (B) Hydrocortisone
 (C) Triamcinolone (D) Methyl-prednisolone
18. The primary indication of Tamoxifen citrate is
 (A) Female infertility (B) Carcinoma of breast
 (C) Endometrial carcinoma (D) Endometriosis
19. Drug used in preventing exercise induced bronchial asthma is
 (A) Sodium cromoglycate (B) Ipratropium bromide
 (C) Terbutaline (D) Epinephrine
20. Aminophylline acts by inhibiting the following enzyme
 (A) Monoamine oxidase (B) Alcohol dehydrogenase
 (C) Phosphodiesterase (D) Cytochrome P 45
21. Disodium cromoglycate is administered by following route
 (A) Inhalation (B) Oral
 (C) IV (D) IM
22. Select the first choice drug for acute gout
 (A) Colchicine (B) Indomethacin
 (C) Allopurinol (D) Dexamethasone
23. For healing duodenal ulcer, the usual duration of H2 blocker therapy is
 (A) 4 weeks (B) 6 weeks
 (C) 8 weeks (D) 12 weeks
24. The preferred drug for controlling an acute exacerbation of ulcerative colitis is
 (A) Prednisolone (B) Sulfasalazine
 (C) Mesalazine (D) Vancomycin
25. Which of the following is a laxative antacid?
 (A) Magnesium salts (B) Aluminium salts
 (C) Calcium salts (D) Sodium salts

MBBS PHASE – II
(CBME)
DEGREE EXAMINATION – FEBRUARY 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. A 70 year old man is admitted with sudden onset of left side chest pain of 6 hours duration, with radiation to left hand, sweating & dizziness. What is the probable diagnosis? Mention the laboratory investigations. Tabulate the morphological changes that are expected in the target organ? | (1+4+5) |
| 3. 10yrs/F child presented with cough, severe dyspnea, wheezing & chest tightness after visiting their farm house. Peripheral Smear showed eosinophilia. a) What is the diagnosis? Mention its types. b) Describe the etiopathogenesis of the given condition? c) Discuss the relevant investigations? | (2+5+3) |
| SHORT ESSAY QUESTIONS: | 9 X 5 = 45 |
| 4. Discuss differences between a Peptic Ulcer and Malignant Ulcer in Stomach. | |
| 5. Name hepatotropic viruses. Describe serologic diagnosis of Hepatitis B infection. | (2+3) |
| 6. Define and classify Cirrhosis. Describe the microscopic features of Cirrhosis. | (2+1+2) |
| 7. Compare and contrast between Nephrotic syndrome and Nephritic syndrome. | |
| 8. Enumerate different types of renal calculi. Discuss its pathogenesis. | (2+3) |
| 9. Classify tumours of Ovary with a neat schematic representation. | |
| 10. Describe gross and microscopy of Fibroadenoma of breast. | |
| 11. Discuss etiopathogenesis and morphology of Pyogenic osteomyelitis. | (3+2) |
| 12. Discuss laboratory diagnosis of diabetes mellitus. | |
| SHORT ANSWER QUESTIONS: | 5 X 3 = 15 |
| 13. Enlist 3 gross distinguishing features between Crohn's Disease and Ulcerative Colitis | |
| 14. List <u>six</u> causes of Nephrotic syndrome. | |
| 15. Enumerate <u>three</u> premalignant lesions of Penile carcinoma. | |
| 16. Define Cushing Syndrome. Mention its <u>four</u> clinical features. | |
| 17. Define patient autonomy and explain its role in patient care. | |

MULTIPLE CHOICE QUESTIONS

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|--|-----------------------------|
| Course: MBBS Phase-II, (CBME) February 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. Constrictive pericarditis is most likely to produce which histologic finding in liver
(A) Mallory hyaline (B) Sinusoidal dilatation
(C) Macronodular cirrhosis (D) Bile duct proliferation
2. The normal thickness of right ventricle is
(A) 0.1 - 0.2 cm (B) 0.3 - 0.5 cm
(C) 0.6 - 0.7 cm (D) 0.8 - 0.9 cm
3. Cor pulmonale can be caused by
(A) COPD (B) Pulmonary embolism
(C) Polyarteritis nodosa (D) Wegener's granulomatosis
4. In bronchial asthma BAL will show
(A) asteroid bodies (B) Ferruginous bodies
(C) Curschmann spirals (D) Schaumann bodies
5. Pan-Acinar emphysema is more common in
(A) Alpha-1 antitrypsin deficiency (B) Coal miners
(C) Foreign body obstruction (D) Smoking
6. Brochopneumonia is grossly characterized by
(A) Diffuse consolidation of a lobe or lobes of one or both lungs (B) Diffuse consolidation of a lobe of one lung
(C) Diffuse consolidation of a lobe of both lungs (D) Patchy consolidation of a lobe or lobes of one or both lungs
7. Mallory Weiss Syndrome is due to the tear at
(A) Distal Oesophagus (B) Proximal stomach
(C) Oesophago gastric junction (D) Gastro-duodenal junction
8. Autoimmune gastritis usually affects
(A) Fundus and body (B) Antrum
(C) Pylorus (D) Cardia
9. The earliest lesion in Crohn's disease is
(A) Dysplasia (B) Crypt abscess
(C) Focal neutrophilic infiltration in epithelial layer (D) Linear ulceration
10. Carrier state is seen in all types of Hepatitis EXCEPT
(A) Hepatitis A (B) Hepatitis B
(C) Hepatitis C (D) Hepatitis D
11. The commonest cause for liver cirrhosis is
(A) Viral Hepatitis (B) Alcoholic liver disease
(C) Biliary disease (D) Wilson's disease

12. The Ovarian counterpart of seminoma of testis is
 (A) Brenner tumors (B) Dermoid cyst
 (C) Hilus cell tumor (D) Dysgerminoma
13. Condyloma acuminatum is caused by
 (A) HSV-I (B) HSV-II
 (C) HPV 6 and 11 (D) HIV- I and II
14. The tumour which has most extensive endocrine paraneoplastic effects
 (A) Squamous cell carcinoma (B) Small cell carcinoma
 (C) Large cell carcinoma (D) Adenocarcinoma
15. In Hashimoto's thyroiditis, serum antibodies are mainly against
 (A) Tri-iodothyronine (B) Thyroxine
 (C) Thyroglobulin (D) Thyroid stimulating Hormone
16. Blue dome cyst is a characteristics finding of
 (A) Carcinoma breast (B) Cystosarcoma phyllodes
 (C) Fibrocystic disease (D) Fibroadenoma
17. Malignant change in the nevus is characterized by all the following EXCEPT
 (A) Change in color (B) Regular borders
 (C) Assymetry (D) Increase in size
18. Munro microabscesses are seen in
 (A) Lichen Planus (B) Leprosy
 (C) Psoriasis (D) Pemphigus
19. Anitschkow cells are pathognomonic for
 (A) Acute rheumatic fever (B) Yellow fever
 (C) Malaria (D) ITP
20. Homer Wright rosettes are seen in which CNS tumour?
 (A) Pilocytic Astrocytoma (B) Medulloblastoma
 (C) Glioblastoma (D) Oligodendroglioma

**MBBS PHASE – II
DEGREE EXAMINATION – FEBRUARY 2024**

Time: 3 Hours

Max. Marks: 100

**PATHOLOGY
PAPER – II**

Q.P. Code: 1009

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

| Question Number | Marks |
|---|--------------------|
| 1. M.C.Q. | 25 X 1 = 25 |
| LONG ESSAY QUESTIONS: | 2 X 10 = 20 |
| 2. Describe the etiopathogenesis, gross and microscopy of Gastric carcinoma. | (4+3+3) |
| 3. A 50 year old man is admitted with sudden onset of central chest pain of six hours duration, profuse sweating and breathlessness. What is your probable diagnosis? Mention appropriate investigations. What morphological changes in the target organs are expected? | (1+4+5) |
| SHORT ESSAY QUESTIONS: | 8 X 5 = 40 |
| 4. Explain the etiopathogenesis and complications of bronchiectasis. | (3+2) |
| 5. Describe the gross and microscopic features of Multinodular goitre. | (2+3) |
| 6. Enumerate and discuss the complications of diabetic mellitus. | (2+3) |
| 7. Discuss the sites, gross & microscopy of Basal cell carcinoma. | (1+2+2) |
| 8. Describe gross and microscopy of Seminoma of testis. | |
| 9. Describe gross and microscopy of Phyllodes tumour of breast. | |
| 10. Describe gross and microscopy of Tuberculous osteomyelitis. | |
| 11. Describe gross and microscopy of osteosarcoma. | |
| SHORT ANSWER QUESTIONS: | 5 X 3 = 15 |
| 12. Enumerate the differences Between Adenomyosis and Endometriosis. | |
| 13. Describe the gross and microscopy of cystic Teratoma of ovary. | (1+2) |
| 14. List the causes of End-Stage Kidney. | |
| 15. List <u>three</u> Pre-malignant lesions of skin. | |
| 16. Describe etiology and significance of Cryptorchidism. | |

MULTIPLE CHOICE QUESTIONS

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|--|-----------------------------|
| Course: MBBS Phase-II, February 2024 | Max. Marks: 25 Marks |
| Subject : Pathology Paper-II, QP Code: 1009 | Time: 30 Minutes |

Instructions:

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

1. The risk of Bronchogenic carcinoma in heavy smokers, as compared to non-smokers is
(A) 30 fold (B) 45 fold
(C) 60 fold (D) 100 fold
2. In tubulovillous adenoma the malignant risk correlates best with
(A) Proportion of lesion that is villous (B) Proportion of lesion that is tubular
(C) Sessile or pedunculated (D) Size of the polyp
3. Haemorrhages in the midline of upper pons are called haemorrhages of
(A) Rosenthal (B) Lewy
(C) Duret (D) Monroe
4. CNS hamartoma is a typical feature of
(A) Von Hippel Lindau disease (B) Neurofibromatosis
(C) Tuberous sclerosis (D) Schwannomas
5. Tracheo-oesophageal fistula is
(A) Congenital malformation (B) Acquired lesion
(C) Both A and B (D) Parasitic disease
6. In sarcoidosis, following counts are increased
(A) B - cells (B) CD4+ T cells
(C) CD8+ T cells (D) T helper cells
7. The following tumors arise from neuronal cells EXCEPT
(A) Astrocytoma (B) Medulloblastoma
(C) Neurilemmoma (D) Ependymoma
8. Squamous cell carcinoma of cervix is associated with
(A) HPV 6, 11 (B) HPV 16, 18
(C) HPV 17, 19 (D) HIV 20, 22
9. Schiller Duval bodies are seen in
(A) Teratoma (B) Choriocarcinoma
(C) Yolk sac tumour (D) Embryonal cell carcinoma
10. Chloroma is also called as
(A) Burkitt's lymphoma (B) Monocytic leukemia
(C) Multiple myeloma (D) Granulocytic sarcoma
11. The breast tumour which causes an enlarged, erythematous and oedematous breast is
(A) Infiltrating duct carcinoma (B) Inflammatory carcinoma
(C) Lobular carcinoma (D) Medullary carcinoma
12. Kimmelstien-Wilson nodule is diagnostic of
(A) Diabetic glomerulosclerosis (B) Malignant hypertension
(C) Amyloid kidney (D) Benign nephrosclerosis

13. All the factors increase the risk of carcinoma breast EXCEPT
 (A) Obesity (B) Multiparity
 (C) Nulliparity (D) Alcoholism
14. Pleomorphic(Anaplastic) type RS cells are seen in
 (A) Nodular sclerosis (B) Mixed cellularity
 (C) Lymphocyte predominant (D) Lymphocyte depleted
15. Translocation t (14;18) is seen in association with
 (A) Follicular lymphoma (B) Burkitt's lymphoma
 (C) Mantle cell lymphoma (D) marginal zone lymphoma
16. Splenomegaly is seen in all EXCEPT
 (A) Typhoid (B) Thalassemia
 (C) Aplastic anemia (D) Gauchers disease
17. Pheochromocytoma is the tumour of
 (A) Adrenal cortex (B) Adrenal medulla
 (C) Parathyroid (D) Pituitary
18. The extra adrenal paraganglioma is also called as
 (A) Neurilemmoma (B) Schwannoma
 (C) Paraganglioma (D) Neuroma
19. One of the following thyroid cancer is a neuroendocrine tumor
 (A) Papillary carcinoma (B) Follicular carcinoma
 (C) Medullary carcinoma (D) Anaplastic carcinoma
20. Islet of Langerhans is concentrated in the following zone of pancreas
 (A) Head (B) Tail
 (C) Body (D) Uncinate process
21. Hypoglycemia is seen in
 (A) Gastrinoma (B) Glucagonoma
 (C) Insulinoma (D) Vipoma
22. Sheehan syndrome is
 (A) Radiation damage to pituitary (B) Scarred pituitary adenoma
 (C) Surgical ablation of pituitary (D) Post partum pituitary necrosis
23. Common type of carcinoma in middle third of esophagus is
 (A) Adenocarcinoma (B) Squamous cell carcinoma
 (C) Transitional cell carcinoma (D) Adenosquamous carcinoma
24. Most common type of salivary gland neoplasm is
 (A) Mixed cell parotid Tumor (B) Adeno carcinoma
 (C) Adenoid cystic carcinoma (D) Warthin's tumour
25. Marker for Hepatitis B carrier state is
 (A) HBsAg (B) HBcAg
 (C) HBe Ag (D) HBd Ag

MBBS PHASE – II
(CBME)
DEGREE EXAMINATION – FEBRUARY 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. Enumerate the bacteria causing lower respiratory tract infections. Describe the steps of sample collection, in a suspected case of lower respiratory tract infection and its transport to the laboratory. Discuss the laboratory diagnosis of suspected case of Pneumococcal pneumonia. (2+3+5=10) | |
| 3. A 52 year old male was brought to the hospital for fever, stiff neck, headache and vomiting for two days. On admission, his CSF examination showed low glucose, high protein and polymorph nuclear leucocytes count of <300/cubic mm. India ink preparation of CSF showed capsulated, budding yeast cells. a) What is the clinical diagnosis and the likely etiological agent in this case? b) Describe the pathogenesis of this condition. c) Discuss its laboratory diagnosis. (02+03+05=10) | |
| SHORT ESSAY QUESTIONS: | 9 X 5 = 45 |
| 4. Explain the laboratory diagnosis of Urinary tract infection. | |
| 5. Enumerate the organisms causing sexually transmitted diseases. Describe the various laboratory diagnostic methods in case of STD. | |
| 6. What is CAUTI? How do you collect the sample in suspected CAUTI and prevent this infection? | |
| 7. Describe the tests to investigate a suspected case of diphtheria. | |
| 8. Describe the pathogenesis and laboratory diagnosis of Cryptococcal meningitis. | |
| 9. Discuss the laboratory diagnosis of a case of tubercular meningitis. | |
| 10. Enumerate <u>six</u> bacteria causing meningitis. Describe the pathogenesis of meningococcal meningitis. | |
| 11. Write the pathogenesis of Polio and discuss the prophylaxis of Polio in detail. | |
| 12. Discuss the laboratory diagnosis of brucellosis. | |
| SHORT ANSWER QUESTIONS: | 5 X 3 = 15 |
| 13. Write the uses of VDRL test. Mention two limitations of this test. | |
| 14. List any <u>six</u> organisms causing Sexually transmitted disease. | |
| 15. HICC has been reported with increased incidence of Nosocomial infection due to improper disposal of soiled linens from the wards. Describe the standard practices to contain such infections. | |
| 16. Describe the role of Mantoux test in diagnosing latent tuberculosis. | |
| 17. CSF sample of a patient is brought to the microbiology laboratory after 3 days of collection. Enumerate the breach in this case and how do you rectify it. | |

MULTIPLE CHOICE QUESTIONS

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|---|-----------------------------|
| Course: MBBS Phase-II (CBME), February 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. Combined immunization is an established method for prevention of
(A) Polio (B) Mumps
(C) Yellow fever (D) Rabies
2. Antigenic shift seen in influenza A virus is
(A) An abrupt change in gene (B) A gradual change
(C) Responsible for endemicity of infection (D) A phenotypic change
3. A patient comes to OPD with history of fever and Sore throat grew throat commensals on culture. The condition of the patient worsened with elevated C-reactive protein, D-dimer. Now that you suspecting SARS-CoV-2, Which of the following is true?
(A) A nasopharyngeal swab for antigen detection (B) Serum testing for presence of antibody
(C) An oro-nasopharyngeal swab for RT-PCR (D) Quarantine him for two weeks without investigating
4. Anatomical waste should be segregated in which color bag?
(A) Blue (B) Yellow
(C) Red (D) Black
5. The leading cause of preventable blindness in the world is caused by
(A) Chlamydia trachomatis (B) Haemophilus influenzae
(C) Neisseria gonorrhoeae (D) Staphylococcus aureus
6. Appearance of a Hard Chancre is characteristic feature in
(A) Primary syphilis (B) Secondary Syphilis
(C) Latent Syphilis (D) Tertiary Syphilis
7. Which of the parameter is not included in Hospital Acquired Infection Surveillance
(A) Open Wound Infection (B) Catheter Associated Urinary Tract Infection
(C) Ventilator Associated Pneumonia (D) Central Line Associated Blood Stream Infection
8. Following are ESKAPE pathogen , **EXCEPT**
(A) Enterococcus faecium (B) Staphylococcus aureus
(C) Klebsiella pneumoniae (D) Proteus vulgaris
9. Most common manifestation of Toxoplasma gondii in immunocompetent adult is
(A) Lymphadenopathy (B) Chorioretinitis
(C) Myocarditis (D) Encephalitis
10. The risk of acquiring Hepatitis C from Blood transfusion in India is currently
(A) 0.1 (B) 0.02
(C) 0.05 (D) 0.07
11. Infectious disease screening of blood donations in India includes testing for the following **EXCEPT**
(A) Syphilis (B) HTLV - 1
(C) vCJD (D) Hepatitis B

12. Parasitic disease transmitted through blood transfusion is
(A) Toxoplasmosis (B) Amoebiasis
(C) Malaria (D) Giardiasis
13. The number of sputum samples to be collected for the diagnosis of pulmonary tuberculosis is
(A) Two (B) Three
(C) Four (D) Five
14. Aspergillus infection in the tissues is characterized by
(A) Budding cell (B) Metachromatic granules
(C) Septate hyphae (D) Pseudohyphae
15. A 58 year old smoker developed severe pneumonia like syndrome and was hospitalized. In next two days he developed meningitis. He was a known HIV positive case. His CD4 counts are less than 50 and his CSF sample was positive for capsular polysaccharide antigen by serology. What is the likely causative agent?
(A) Mycobacterium tuberculosis (B) Cryptococcus
(C) Pneumococci (D) Candida species
16. A 20 year old presented with projectile vomiting, headache and fever. He was hospitalized and diagnosed as meningitis. The Gram stain of CSF showed intracellular Gram negative diplococci. Which organism is responsible for this condition.
(A) Escherichia coli (B) Neisseria meningitidis
(C) Streptococcus pneumoniae (D) Klebsiella species
17. Malta fever is caused by
(A) Treponema pallidum (B) Borrelia burgdorferi
(C) Brucella Melitensis (D) Pseudomonas aeruginosa
18. A sewage worker was admitted to hospital with fever, jaundice and renal failure. The most appropriate test to diagnose the infection in this patient is
(A) Weil Felix test (B) Microscopic Agglutination test
(C) Immunofluorescence test (D) Paul Bunnell test
19. Scrub typhus is transmitted by
(A) Reduviid bug (B) Trombiculid mite
(C) Cyclops (D) Louse
20. Kyasanoor forest disease is transmitted by
(A) Fleas (B) Mite
(C) Tick (D) Mosquito

**MBBS PHASE – II
DEGREE EXAMINATION – FEBRUARY 2024**

Time: 3 Hours

Max. Marks: 100

**MICROBIOLOGY
PAPER – II**

Q.P. Code: 1011

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. | 25 X 1 = 25 |
| LONG ESSAY QUESTIONS: | 2 X 10 = 20 |
| 2. Classify viruses. Describe the methods of viral cultivation. | (4+6) |
| 3. Name the parasites causing anemia. Describe the laboratory diagnosis of Malaria. | (4+6=10) |
| SHORT ESSAY QUESTIONS: | 8 X 5 = 40 |
| 4. Describe the lesions caused by Candida Species. | |
| 5. Describe the Morphological classification of fungi. | |
| 6. Describe the Clinical features and laboratory diagnosis of Kyasanur Forest Disease. | |
| 7. Classify Herpes viruses and add a note on laboratory diagnosis of the cutaneous manifestations of Herpes simplex. | |
| 8. Describe the life cycle of Toxoplasma gondii. | |
| 9. Describe pathogenesis of Giardia lamblia. | |
| 10. Describe the pathogenesis and laboratory diagnosis of Hydatid cyst. | |
| 11. Describe the clinical features of and laboratory diagnosis of hook worm infection. | |
| SHORT ANSWER QUESTIONS: | 5 X 3 = 15 |
| 12. Name <u>three</u> laboratory tests done for diagnosis of Candida infections. | |
| 13. Describe the laboratory diagnosis of fungal keratitis. | |
| 14. Explain Oral Polio vaccines. | |
| 15. Enumerate <u>three</u> oncogenic viruses. | |
| 16. Draw a neat labeled diagram of trophozoite and cyst of E.hystolitica. | |

MULTIPLE CHOICE QUESTIONS

| | |
|---|-----------------------------|
| Course: MBBS Phase-II, February 2024 | Max. Marks: 25 Marks |
| Subject : Microbiology Paper-II, QP Code: 1011 | 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 fungus is non cultivable
(A) Rhinosporidium (B) Histoplasma
(C) Sporothrix (D) Penicillium
2. All the following media are used to grow fungi EXCEPT
(A) Sabouraud Dextrose Agar (B) Corn Meal Agar
(C) Bird Seed Agar (D) Bismuth Sulphite Agar
3. Which of the following stain is NOT used for fungi
(A) Leishman (B) Calcoflour white
(C) Periodic acid schiff (D) Gomori's Methenamine
4. Pencil shaped macroconidia are seen in
(A) T.rubrum (B) T.schoenleinii
(C) T. tonsurans (D) T.violaceum
5. Chromoblastomycosis is caused by all of the following fungi EXCEPT
(A) S.schenckii (B) E.dermatitis
(C) P. verrucosa (D) F.pedrosi
6. All of the following are opportunistic fungal infections EXCEPT
(A) Candidosis (B) Sporotrichosis
(C) Aspergillosis (D) Cryptococcosis
7. Entero-test is used for diagnosis of
(A) C.parvum (B) T.vaginals
(C) E.histolytica (D) G.lambliia
8. Charcot Leyden crystals are derived from
(A) Neutrophils (B) Macrophages
(C) Eosinophils (D) Basophils
9. The larval form of Echinococcus granulosus is called
(A) Cysticercus cellulosae (B) Cystiercoid
(C) Cysticercus bovis (D) Hydatid cyst
10. The length of Echinococcus granulosus is
(A) 3 - 6 mm (B) 2 - 4 cm
(C) 2 - 3 m (D) 5 - 10 m
11. Eggs of Ascaris lumbricoides can be
(A) Fertilized (B) Unfertilized
(C) Decorticated (D) All of the above
12. Loa loa is commonly known as
(A) Eye worm (B) Guinea worm
(C) Round worm (D) Pin worm

13. Adult worm of *Loa loa* is found in
 (A) Lymphatic system (B) Connective tissue
 (C) Conjunctival tissue (D) Eyelid
14. Inclusion body produced by *Molluscum contagiosum* is called as
 (A) Negri body (B) Cowdry type A
 (C) Cowdry type B (D) Handerson Peterson body
15. Von Magnus phenomenon
 (A) Is a normal replicative cycle (B) Virus yield has low hemagglutination
 (C) Virus has high infectivity (D) Virus yields has high hemagglutination but low infectivity.
16. Koplik's spots on the buccal mucosa is a characteristic feature
 (A) Mumps (B) Measles
 (C) Chicken pox (D) German measles
17. The envelope spike antigen of HIV -1 is
 (A) gp 120 (B) gp 140
 (C) gp 41 (D) gp 38
18. Type of human papilloma virus isolated from Carcinoma cervix is
 (A) 6 (B) 8
 (C) 18 (D) 22
19. Coxsackie group A commonly causes
 (A) Conjunctivitis (B) Aseptic meningitis.
 (C) Hepatitis (D) Myocarditis
20. Amoebic liver abscess can be diagnosed by demonstrating,
 (A) Cysts in the sterile pus (B) Trophozoites in the pus
 (C) Cysts in the intestine (D) Trophozoites in the feces
21. Which of the following virus enters through skin?
 (A) Adeno (B) Papilloma
 (C) Rota (D) Rhino
22. A person positive for both HBsAg and HBeAg, most likely has
 (A) Acute hepatitis and is infectious (B) Both HBV and HEV infections
 (C) Recovered from HBV infection (D) Chronic HBV infection
23. Which of the following HIV-1 subtype is more prevalent in India?
 (A) A (B) B
 (C) C (D) D
24. Genetically engineered vaccine is available for
 (A) Poliomyelitis (B) Hepatitis B
 (C) Yellow fever (D) Influenza
25. Kyasanur Forest Disease is transmitted by
 (A) Tick (B) Flea
 (C) Mosquito (D) Mite
