

MD[Anaesthesiology]

BF/2008/05

Basic Sciences as applied to Anaesthesiology [Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe autoregulation in context of cerebral blood flow. Describe the factors affecting the same. What are its implications to anaesthesiologist and intensivist? How to measure cerebral blood flow. [25]
 2. Describe physiology of ventricular contraction and describe the mechanism of action of commonly used inotropic agents in relation to this. Classify the various inotropic agents. What are the drugs used for catecholamine resistant shock. [25]
 3. Describe Coagulation cascade. Enumerate factors predisposing to deep vein thrombosis. Enlist the drugs and their dosages which are used to prevent perioperative DVT. What are the drugs and the dosages used to treat DVT and what are the defined endpoints for controlling these drugs. [25]
 4. **Write short notes on:** [25]
 - a. Hypoxic pulmonary vasoconstriction.
 - b. Diffusion hypoxia.
 - c. Adverse effects of neuromuscular blocking agents.
 - d. Methaemoglobinemia and anaesthetist.
 - e. Bainbridge reflex.
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MD[Anaesthesiology]

BF/2008/05

Clinical Sciences as applied to Anaesthesiology [Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss pathophysiology of Asthma. Describe anaesthetic management of asthmatic patient coming for Laproscopic Cholecystectomy. [20]

 2. Discuss an anaesthetic management of severe mitral stenosis coming for emergency Caesarian section. [20]

 3. **Discuss in brief:** [30]
 - a. Electronic database.
 - b. Causalgia and its management.
 - c. Implications of HIV for intensivist.

 4. **Write short notes:** [30]
 - a. Activated clotting time.
 - b. Low flow anaesthesia.
 - c. Target controlled infusion.
-

MD[Anaesthesiology]
BF/2008/05

Principles and Practice of Anaesthesiology
[Paper-III]

Time : 3 Hours

M.M.: 100

*Note: Attempt all questions.
All questions carry equal marks.*

1. Methods of confirming correct positioning of endotracheal tube.
 2. Anaesthetic management for electro-convulsive therapy.
 3. Special points for importance for CPBR of a 32 weeks pregnant patient.
 4. Concerns of the anaesthesiologist for a patient with cardiac stents.
 5. Uses of Clonidine in practice of anaesthesia and critical care.
 6. Management of diabetic ketacidosis.
 7. Anaesthetic concerns for Transurethral resection of prostate.
 8. Thromboelastography.
 9. Supine position.
 10. Anaesthetic concerns in diaphragmatic hernia.
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MD[Anaesthesiology]

BF/2008/05

Recent advances in Anaesthesiology including principles of resuscitation and Intensive care therapy [Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. What do you understand by the term 'Percutaneous Dilatational Tracheostomy'? What are its advantages and disadvantages as compared to traditional tracheostomy. [20]
 2. What are the different types of Hypersensitivity reactions. What is the mechanism of latex allergy, and how can it be prevented. [20]
 3. Write short notes on: [3x10=30]
 - a. Transdermal drug administration.
 - b. Low molecular weight Heparins.
 - c. Glutamine.
 4. Discuss in brief: [3x10=30]
 - a. Inverse Ratio ventilation.
 - b. Permissive hypercapnia.
 - c. Jugular bulb venous oxygen saturation.
-

MD[Obstetrics & Gynaecology]

BF/2008/05

Basic Sciences as related to Obstetrics and Gynaecology [Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss embryological development of female reproductive system. [40]

 2. **Write short notes on:**
 - a. Premenstrual syndrome. [15]
 - b. Early diagnosis of ectopic pregnancy. [15]

 3. **Write short notes on:**
 - a. Long term sequelae of P.C.O.D. [15]
 - b. Weight gain in pregnancy. [15]
-

MD[Obstetrics & Gynaecology]

BF/2008/05

Obstetrics including diseases of Neonates
[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Enumerate the causes of morbidity and mortality in Eclampsia. Describe the management of a case of eclampsia at 30 wks period of gestation. [25]
 2. Describe the Iron requirement during pregnancy. How will you investigate and manage a woman of 6 gm% Hb at 32 wks pregnancy. [25]
 3. **Write short notes on:**
 - a. Preconceptional counseling. [10]
 - b. Evaluation of new born at birth. [10]
 4. **Write short notes on:**
 - a. Causes of Ocipitoposterior position and its management. [10]
 - b. Role of fetal USG. [10]
 - c. Kangaroo care. [10]
-

MD[Obstetrics & Gynaecology]

BF/2008/05

Principles and Practice of Gynaecology and
Gynaecological Pathology
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss the management of a 50 years old lady with cyclical menorrhagia. [20]
 2. a. Enumerate the advantages and disadvantages of uterine artery embolisation for a patient of fibroid uterus. [10]
b. Advantages and disadvantages of newer intrauterine devices. [10]
 3. What is unexplained infertility. How will you manage a patient of infertility suspected to have endometriosis. [20]
 4. A 17 year old patient is brought by her mother as she has not yet attained menarche. How will you manage. [20]
 5. **Write short notes on:**
 - a. Vulval melanoma. [10]
 - b. Urge incontinence. [10]
-

MD[Obstetrics & Gynaecology]

BF/2008/05

Recent Advances in Obstetrics & Gynaecology [Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

Write notes on:

[10 x 10]

1. Medical management of ectopic pregnancy.
 2. Supports of Uterus and management of IIIrd degree prolapse.
 3. Assisted reproductive techniques.
 4. Incompetent OS and its management.
 5. Maternal mortality and prevention.
 6. Neonatal hyperbilirubemia.
 7. Newer intrauterine contraception.
 8. Management of Post menopausal Osteoporosis.
 9. Causes of Post menopausal bleeding.
 10. Screening of Cervical Cancer
-

MD[Medicine]

BF/2008/05

Basic Sciences as related to Medicine
[Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Outline anatomy of Mediastinum and enumerate and discuss important disorders affecting Mediastinum. [25]
2. Outline Bilirubin metabolism and discuss various congenital Hyperbilirubinemias. [25]
3. **Write short notes on:** [30]
 - a. Vitamin K deficiency.
 - b. Peritoneal dialysis.
 - c. Geriatric medicine.
4. **Discuss briefly:** [20]
 - a. Echo Cardiography and its clinical significance.
 - b. Hyponatremia.

MD[Medicine]

BF/2008/05

Principles of Medicine
[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe new risk factors and pathogenesis of atherosclerosis. Outline the treatment goals and management of Hyperlipidemias. [30]

 2. List causes of ARDS. Describe its pathogenesis and treatment strategies for this disorder. [30]

 3. **Write short notes on:**
 - a. Management of Multiple hydatid cysts. [13]
 - b. Methemoglobinemia. [13]
 - c. Rituximob. [14]
-

MD[Medicine]

BF/2008/05

Practice of Medicine
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss the etiopathogenesis, host defence mechanisms, clinical features and management of Dengue haemorrhagic fever and Dengue shock syndrome. [25]

 2. **Write short notes on:**
 - a. Renal tubular acidosis type 4. [10]
 - b. Acute aortic regurgitation. [15]

 3. **Discuss the following:** [5x10=50]
 - a. Current definition of metabolic syndrome and its prevention.
 - b. Management of atrial fibrillation in a 60 year old male.
 - c. Emphysematous Pyelonephritis, clinical features, diagnosis and treatment.
 - d. Subclinical hypothyroidism : Clinical implications and diagnosis.
 - e. Hepatopulmonary syndrome.
-

MD[Medicine]

BF/2008/05

Recent Advances in Medicine
[Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss the current trends in the management of Obesity. [20]
 2. Discuss the role of biologicals in the management of Rheumatoid arthritis. [20]
 3. Discuss the recent advances in the management of Immune Thrombocytopenic Purpura. [20]
 4. **Write short notes on:** [20]
 - a. Thiazolidinediones and Cardiovascular risk.
 - b. Newer antiretroviral agents.
 5. **Discuss in brief:** [20]
 - a. Capsule endoscopy.
 - b. Mycophenolate mofetil.
-

MD[Tuberculosis & Respiratory Diseases]

BF/2008/05

**Basic Sciences as related to Tuberculosis and other
Respiratory diseases
[Paper-I]**

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe etiopathogenesis, pathology of Post Primary Pulmonary tuberculosis. [20]
 2. Describe various Congenital anomalies of Broncho-Pulmonary segments. Discuss any one of them detail. [20]
 3. Describe immuno-etiopathogenesis of Bronchial asthma. [20]
 4. **Write brief notes on:**
 - a. FEV₁. [10]
 - b. Chemical control of respiration. [10]
 - c. Prevalence of T.B. [10]
 - d. Global prevalence of Asthma. [10]
-

MD[Tuberculosis & Respiratory Diseases]

BF/2008/05

Principles and Practice with Recent Advances of Tuberculosis
[Pulmonary & Non-Pulmonary]
[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss XDR-TB. How will you prevent and manage it. [30]

 2. Describe radiological diagnostic signs of abdominal tuberculosis. How will you manage a case of Tuberculous Ascites. [30]

 3. **Write short notes on:**
 - a. Efficacy of DOTS in different types of Extra-pulmonary tuberculosis. [10]
 - b. Severe form of tuberculosis of RNTCP. [10]
 - c. Clarithromycin in tuberculosis. [10]
 - d. Non-tuberculous Mycobacteria. [10]
-

MD[Tuberculosis & Respiratory Diseases]

BF/2008/05

**Principles and Practice with Recent Advances of
Non-tubercular chest diseases**

[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss diagnosis and management of COPD. [30]
 2. What is Community Acquired Pneumonia[CAP]? Describe its microbial profile and management. [30]
 3. **Write notes on:** [40]
 - a. Occupational asthma.
 - b. Pulmonary rehabilitation.
 - c. Acute hypercapnic respiratory failure.
 - d. Sleep apnea.
-

MD[Tuberculosis & Respiratory Diseases]

BF/2008/05

Tuberculosis and Other Respiratory diseases
[Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss role of medical colleges in R.N.T.C.P.[Revised National TB Control Programme]. [35]

 2. Discuss aetiopathogenesis and management of Pulmonary alveolar hemorrhages. [35]

 3. **Write short notes on:** [30]
 - a. Parenchymal Calcification.
 - b. BAL
 - c. Liquid ventilation.
-

MD[Physiology]
BF/2008/05

General Physiology
[Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe various intracellular and membrane bound Cytoskeletal structures. Add note on ionic channels. [30]

 2. **Write notes on:** [4x10=40]
 - a. Immunological tolerance.
 - b. DNA polymorphism.
 - c. ATP sensitive channels in control of cell functions.
 - d. Genesis of resting membrane potential.

 3. Describe the maintenance of homeostasis of intracellular Calcium. [30]
-

MD[Physiology]
BF/2008/05

Clinical sciences as related to Physiology
[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe physiology and Endocrine changes underlying human Lactogenesis. [34]

 2. **Write physiological basis of:** [3x11=33]
 - a. Arterial compliance may influence baroreflex function in athletes and hypertensives.
 - b. Innate and adaptive immune cells in the respiratory system.
 - c. Osteoporosis.

 3. **Write short notes on:** [3x11=33]
 - a. Nephrogenic diabetes insipidus.
 - b. Modulators of feeding behavior.
 - c. Auditory evoked potential.
-

MD[Physiology]
BF/2008/05

**Biophysics, Biochemistry & Histology related to
systemic physiology**
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss the various biophysical considerations governing flow, pressure and resistance in human circulation. [30]

 2. Discuss the role of Liver in Cholesterol metabolism. Give the pathophysiology in formation of gall stones. [30]

 3. **Write short notes on any TWO of the following:** [2x 20=40]
 - a. Gibbs-Donnan equilibrium.
 - b. Glucose transport across cell membrane.
 - c. Molecular motors & their functions.
-

MD[Physiology]

BF/2008/05

Systemic Physiology including recent advances
[Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Name growth promoting hormones . Describe in detail their interaction at different Ages after birth. Add a note on major causes of Dwarfism.
[25]

 2. **Write note son the following:** [3x15=45]
 - a. Recent concepts of learning and memory.
 - b. Length – Tension relationship in different types of muscles.
 - c. G. Protein diseases.

 3. **Explain giving physiological basis of:** [3x10=30]
 - a. Dialysis therapy.
 - b. Blood transfusion.
 - c. Puberty and its clinical correlates.
-

MD[Social & Preventive Medicine]

BF/2008/05

Basic Sciences as Applied to Community Medicine
[Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. **Write in short:**
 - a. Nutritional profiles of adolescent in your district. [10]
 - b. Effect of mass communication for control of non-communicable diseases. [10]

 2. **Write difference between (with example):**
 - a. Health & Disease. [5]
 - b. Incubatory carrier & Convalescent carrier. [5]
 - c. Elimination V/s Erradication. [5]
 - d. Difinitive Host & Intermediate host. [5]

 3. **Write in brief:** [10+10]
 - a. What is a Survey? Write dimensions of survey & types of survey.
 - b. The value of mathematical models.

 4. **Write in brief:** [4x5=20]
 - a. Dependable variables.
 - b. The infant milk substitute, feeding bottle and infant foods Act(1992)
 - c. Epidemiological tools.
 - d. AIDS.

 5. **Write short notes on:** [4x5=20]
 - a. Scope of health education in promotional activities.
 - b. Chromosomal diseases.
 - c. Accountability & advocacy.
 - d. Logistic management in district hospital.
-

MD[Social & Preventive Medicine]

BF/2008/05

Public Health Administration & Management Sciences

[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe the health related Millenium development goals and the current status of these goals and discuss the strategies for attainment of these goals. [30]

 2. **Write briefly on:** [3x10=30]
 - a. Social Audit for Community Action [SACA].
 - b. Accrediated Social Health Activist[ASHA].
 - c. W.H.O.

 3. **Write short notes on:** [4x10=40]
 - a. Health management information system [HMIS].
 - b. Anti-larral strategies for malaria control.
 - c. Objectives of NACP -Phase III.
 - d. Integrated management of Neonatal and Childhood Illnesses[IMNCI].
-

MD[Social & Preventive Medicine]

BF/2008/05

Community Medicine & Family Practice
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss critical components of Quality care in maternal & child health. [30]
 2. **Write in brief:** [30]
 - a. National paediatrics HIV/ AIDS initiative.
 - b. Risk factor trial.
 - c. Public health approach in elder's abuse.
 3. **Write short notes on:** [40]
 - a. Child placements.
 - b. Emergency contraceptives.
 - c. Ready to eat (RTE) at Anganwadi center.
 - d. Communication barriers.
-

MD[Social & Preventive Medicine]

BF/2008/05

Recent Advances in Community Medicine [Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. a. What is the current status of National Leprosy eradication program. [15]
 - b. Applications of biotechnology in public health. [20]
 2. a. Informed consent in Public health research. [15]
 - b. Revised International health regulations. [20]
 3. **Write short notes on:**
 - a. Rapid response teams. [10]
 - b. Lot Quality Assurance Sampling[LQAS]. [10]
 - c. Amendments in PNDDT act. [10]
-

MD[Pharmacology]

BF/2008/05

**Clinical and other basic sciences as related to
Pharmacology
[Paper-I]**

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. **Write an account of:** [35]
 - a. Advances in the chemotherapy of Tuberculosis.
 - b. Leukotrienes antagonists.
 - c. Newer therapies for Osteoporosis.

 2. **Write drug treatment of:** [30]
 - a. Irritable bowel syndrome.
 - b. Opium withdrawal manifestations.

 3. **Write short notes on following:** [35]
 - a. Antimicrobial prophylaxis.
 - b. Computed aided drug development.
-

MD[Pharmacology]

BF/2008/05

General & Systemic Pharmacology
[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss the etiopathogenesis of Parkinson's disease with a focus on the interplay between various kinds of neurons involved. Write about the current and future drug treatment options. [30]

2. **Give an account of the drug treatment of:** [30]
 - a. Diabetic neuropathy.
 - b. Mycobacterium Avium Complex[MAC] infection in AIDS patients.
 - c. Chronic Obstruction Pulmonary Disease [COPD].

3. **Write notes on:** [40]
 - a. Drug use in geriatric patients.
 - b. Influence of environmental factors on drug responses.
 - c. Clinical significance of volume of distribution[Vd] of drugs.
 - d. Monoclonal antibodies - role in therapeutics.

MD[Pharmacology]

BF/2008/05

Experimental & Clinical Pharmacology
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. **Describe screening methods for:** [30]
 - a. Antidiabetic activity.
 - b. Antipsychotic activity.

 2. **Write short notes on:** [40]
 - a. Therapeutic potential and limitation of drugs acting via renin-angiotensin aldosterone system.
 - b. Estrogen and progesterone receptor antagonists.
 - c. Principles of combination chemotherapy.
 - d. Therapeutic potential of drugs targeting GABA-ergic neurotransmission.

 3. **Give brief account of:** [30]
 - a. Role of bioequivalence studies in drug research.
 - b. Genotoxicity studies— clinical significance and experimental methods of evaluation.
-

MD[Pharmacology]

BF/2008/05

Recent Advances in Pharmacology

[Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. **Discuss the recent advances of drugs acting via:**
 - a. 5 HT - receptors. [20]
 - b. Endothelin derived factors. [20]

 2. **Discuss in brief:**
 - a. Therapeutic potentials of Steroids. [10]
 - b. Probiotic. [10]
 - c. Cosmeceuticals. [10]

 3. **Write short notes on:** [3x10=30]
 - a. Effect of antihypertensive pharmacotherapy on morbidity and mortality.
 - b. Anti adhesive therapy.
 - c. Vanilloid receptors.
-

MD[Radiodiagnosis]

BF/2008/05

Basic Sciences & Physics as applied to Radiodiagnosis
[Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

Write notes on:

[10 x 10 = 100]

1. Fusion radiology.
 2. SPECT.
 3. Tissue harmonic imaging.
 4. Virtual endoscopy.
 5. Sono CT.
 6. Radionuclides in liver study.
 7. DWI [Diffusion Weighted Imaging]
 8. Intensifying screens.
 9. Radiation hazards.
 10. TAPVC [Total Anomalous Pulmonary Venous Connection]
-

MD[Radiodiagnosis]

BF/2008/05

Principles & Practice of Radiodiagnosis

[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Answer all the questions briefly and to the point.

1. Give an account of radiological features of Pleural Mesothelioma. [32]

 2. Define and enumerate Neuro-Cutaneous syndrome. Describe imaging features of any one of them. [32]

 3. **Write short notes on:** [36]
 - a. Budd - Chiary Syndrome.
 - b. Langerhans Histiocytosis.
 - c. Digital Mammography.
-

MD[Radiodiagnosis]
BF/2008/05

Radiodiagnosis as related to Pathology
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss the pathology and imaging appearances of the Intradural Spinal Cord tumours. [35]
 2. Discuss the pathophysiology and imaging in renal tuberculosis. [35]
 3. **Briefly discuss the following:**
 - a. Pulmonary Sarcoidosis. [10]
 - b. Benign tumours of the gut. [10]
 - c. Splenic trauma. [10]
-

MD[Radiodiagnosis]

BF/2008/05

Recent advances in Radiodiagnosis

[Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss briefly the basic principles of Multi Slice CT Scan. Discuss its role in Thoracic lesions. [20]
 2. **Write short notes on:**
 - a. Tissue Harmonic Imaging. [10]
 - b. Radiological intervention in management of HCC. [10]
 3. **Discuss in detail:**
 - a. Application of PACS[Picture Archiving & Communicating System] in radiology. [10]
 - b. Parathyroid imaging. [10]
 4. **Write short notes on:**
 - a. CTA. [10]
 - b. MR Spectroscopy. [10]
 5. **Discuss briefly:**
 - a. Role of radiologist in TIA. [10]
 - b. Sono Mammography of Benign breast lesions. [10]
-

MD[Microbiology]
BF/2008/05

Applied Microbiology
[Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Write about following: [2x15=30]
 - a. Rapid and automated identification by Stems.
 - b. Immunomodulators.

 2. Write short notes on following: [2x15=30]
 - a. Potential virulence factors of anaerobic bacteria.
 - b. Diarrhoeagenic Escherichia Coli.

 3. Write briefly on following:
 - a. Pneumocystis Girvoci. [10]
 - b. Nosocomial parasitic infections. [15]
 - c. Prions. [15]
-

MD[Microbiology]
BF/2008/05

**General Principles of Microbiology including tissue reactions to
Microbial infections**
[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1.
 - a. Discuss on biomedical waste in laboratory medicine and their management. [17]
 - b. Discuss pathogenesis of tuberculosis and its immunological response. [17]

 2. **Write short notes on:** [3x12=36]
 - a. Lepromin reaction.
 - b. New Cholera toxin.
 - c. Major histocompatibility complex in human.

 3. **Write briefly on:** [3x10=30]
 - a. Super antigen.
 - b. Serum sickness.
 - c. Recombinant DNA technology
-

MD[Microbiology]
BF/2008/05

**Systemic Bacteriology, Mycology and Virology, Parasitology &
Immunology**
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. **Discuss:**
 - a. Use of Molecular methods in Microbiology. [20]
 - b. Status of HIV vaccines. [10]
 - c. Laboratory diagnosis of a case of suspected diphtheria. [10]

 2. **Describe:**
 - a. Epstein Barr Virus [EBV] and its role in human cancers. [10]
 - b. Toxocariasis. [10]
 - c. Vibrio Cholerae 0139. [10]

 3. **Write short notes on :**
 - a. Atypical Mycobacteria. [10]
 - b. Sporotrichosis. [10]
 - c. Toxoplasmosis in pregnancy. [10]
-

MD[Microbiology]

BF/2008/05

**Recent advances in Microbiology, Virology, Mycology &
Parasitology & Molecular Biology
[Paper-IV]**

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. **Describe the following:**
 - a. Neurocysticercosis and the recent advances in the diagnosis. [10]
 - b. Congenital viral infection and their diagnosis. [10]
 - c. Phenotypic methods of MRSA typing. [10]
 - d. *Penicillium marneffi*. [10]

 2. **Write short notes on:**
 - a. Nosocomial fungal infections. [10]
 - b. Pneumococcal vaccines. [10]

 3. **Discuss the following:**
 - a. Microarrays. [10]
 - b. Viral haemorrhagic feveres. [10]
 - c. Immune Complex diseases. [10]
 - d. Cryptosporiodosis. [10]
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MD[Dermatology, Venereology & Leprosy]

BF/2008/05

Basic Sciences as related to Dermatology, STD & Leprosy
[Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss the pathogenetic mechanisms of Pruritus. [40]

2. **Write short notes on:** [6x10=60]
 - a. Pathogenesis of Psoriasis.
 - b. Spongiotic tissue reactions.
 - c. Arthus reaction.
 - d. Collagen implants.
 - e. HIV structure.
 - f. Transmission of Leprosy.

MD[Dermatology,Venereology & Leprosy]

BF/2008/05

Principles and Practice of Dermatology,STD & Leprosy [Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

All questions carry equal marks.

1. Discuss etiopathogenesis of contact dermatitis.
 2. Discuss management of Basal cell carcinoma.
 3. Non Gonococcal urethritis.
 4. Retinoids & Skin diseases.
 5. Behcet's syndrome.
 6. Kaposi's sarcoma.
 7. Hyperhidrosis and its management.
 8. Chemical peeling.
 9. Cicatricial Alopecia.
 10. Lentigo Maligna.
-

MD[Dermatology, Venereology & Leprosy]
BF/2008/05

Histopathology, Leprology and Venereology
[Paper-III]

Time : 3 Hours

M.M.: 100

*Note: Attempt all questions.
All questions carry equal marks.*

1. Newer drugs in Leprosy.
 2. Indeterminate Leprosy.
 3. Pathogenesis of Nerve damage in Leprosy.
 4. Acetowhite test.
 5. Cell adhesions molecules.
 6. Histopathology of Basal Cell Epithelioma.
 7. Ultrastructure of epidermo-dermal junction.
 8. HPV vaccines.
 9. Chlamydial infections in females.
 10. Lab. Diagnosis of HIV infection.
-

MD[Dermatology, Venereology & Leprosy]

BF/2008/05

**Recent advances in Dermatology, Leprosy & Venereology and
General medicine as related to Dermatology**

[Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Trichotillomania. [15]
 2. Lupus Panniculitis. [15]
 3. Hidden Leprosy. [15]
 4. Finesteride. [15]
 5. Esthiomene. [15]
 6. Serodiagnosis of Leprosy. [15]
 7. Enumerate AIDS defining illnesses. [10]
-

MD[BIOCHEMISTRY]

BF/2008/05

Introductory Biochemistry & molecular Biochemistry [Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1.
 - a. Discuss biochemical basis of Cancer. How a malignant cell is different biochemically from a normal cell. [10]
 - b. What are tumour markers? Discuss their clinical significance. [10]

 2. Explain the laboratory approach to pin point the defective gene in a case of inborn error of metabolism. Discuss the principle of gene therapy also. [20]

 3. **Write short notes on:** [4x5=20]
 - a. Molecular Chaperones.
 - b. DNA damage by free radicals.
 - c. Lipoprotein - a
 - d. Iron in cellular respiration.

 4. **Write briefly:**
 - a. G-Protein. [7]
 - b. Polyamines. [7]
 - c. Ionophores. [6]

 5. **Write short notes on:** [4x5=20]
 - a. Renal ricket.
 - b. Biochemical tests for malabsorption.
 - c. P-53.
 - d. Malignant Carcinoid syndrome.
-

MD[BIOCHEMISTRY]

BF/2008/05

Biochemistry of body Metabolism [Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe the transport of Cholesterol between the tissues in human. What are the factors affecting Cholesterol balance at the cellular level? Mention the role of Cholesterol in the genesis of atherosclerosis. [20]
 2. Name the major classes of Glycoproteins. What are the principal sugars found in them? Elucidate the biosynthetic pathways of Glycoproteins. Mention in brief disease involving abnormalities in the synthesis and degradation. [20]
 3. **Describe:** [20]
 - a. Metabolism of homocysteins and its clinical importance.
 - b. Biosynthesis of pyrimidine nucleotides.
 4. How is the flow of intermediates through metabolic pathways is controlled? Illustrate your answer with suitable examples in the absorptive state and the role of Organs in the regulatory mechanisms. [20]
 5. **Write short notes on:** [20]
 - a. Metabolism of Catacholamines and their clinical significance.
 - b. Ethanol metabolism and its importance.
-

MD[BIOCHEMISTRY]

BF/2008/05

Biochemistry of Hormones, Vitamins, Minerals, Enzymes & Clinical Biochemistry [Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. a. Explain the basic concepts of Total Quality Management [TQM] in clinical chemistry laboratory. Describe the steps you will employ to implement and ensure TQM? [15]
b. **Answer briefly:** [10]
 - i) Chemiluminescence assays.
 - ii) Bar Coding in clinical chemistry laboratory.

 2. a. Describe the current developments and applications of enzyme immuno assays in clinical chemistry laboratory with suitable examples. [15]
b. **Write short notes on:** [10]
 - i) Biochemical basis of liver failure.
 - ii) DNA microarray.

 3. a. Describe the laboratory approaches to evaluate adrenal cortical function. State the salient laboratory findings in a case of adrenal dysfunction. [15]
b. **Give a brief account of:** [10]
 - i) Growth factors.
 - ii) Oncofoetal antigens.

 4. a. Explain the various mechanisms by which enzyme activity is regulated? State the principles of measurement of enzyme activity with suitable examples. [15]
b. Discuss the principles of determination and clinical significance of serum electrolytes and minerals in clinical laboratory. [10]
-

MD[BIOCHEMISTRY]

BF/2008/05

Recent advances in clinical Biochemistry and Biochemical methodologies [Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe recombinant DNA technology and its applications. How retroviruses can be used for gene therapy. [25]

 2. **Compare and contrast the following:**
 - a. Lipoprotein Lipase and hormone sensitive Lipase. [8]
 - b. AST and ALT [8]
 - c. Accuracy and Precision. [9]

 3. **Answer briefly:**
 - a. Mechanism responsible for antibody diversity. [7]
 - b. Biochemical basis of chronic complications of diabetes mellitus. [6]
 - c. Diseases associated with abnormal Collagen metabolism. [6]
 - d. Recent insights into iron homeostasis in body. [6]

 4. **Write briefly about:**
 - a. Chemiluminescence. [6]
 - b. Antisense therapy. [6]
 - c. Replisomes. [6]
 - d. Molecular Chaperons. [7]
-

MD[Pathology]

BF/2008/05

**Immunopathology, Molecular Biology, Cytogenetics and
Experimental Pathology including cancer research
[Paper-II]**

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe role of immunochemistry techniques in diagnosis of poorly differentiated tumors. [35]

 2. **Briefly comment on:** [30]
 - a. Emerging concepts about systemic lupus Erythematosus.

 - b. Spectrum of Vascular pathology affecting patients with Anti Phospholipid syndrome.

 3. Describe pathology of Graft rejection. [35]
-

MD[Pathology]
BF/2008/05

**Histo-Pathology-Cytology including Recent Advances in the
concerned topics
[Paper-III]**

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe role of Cytopathology in the diagnosis of bone lesions. [25]

 2. **Write notes on:** [25]
 - a. Botyroid variant of embryonal Rhabdomyosarcoma.
 - b. The potential agents of Bioterrorism.

 3. Classification of Clear cell tumours involving the salivary glands. Describe briefly morphology of these tumours. [25]

 4. Discuss non-invasive or minimally invasive techniques for the investigation of adult deaths. [25]
-

MD[Pathology]
BF/2008/05

**Haematology, Immunoheamatology & Blood Transfusion with
recent advances in the concerned topics**
[Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. **Discuss briefly:**
 - a. Qualitative disorders of Leukocytes. [12¹/₂]
 - b. Variants of CML. [12¹/₂]
 2. **Write briefly:**
 - a. Myelodysplastic syndrome. [15]
 - b. Exchange transfusion. [10]
 3. Discuss briefly β thalassemia syndromes? How thalassemia major can be prevented? [25]
 4. Write short notes on:
 - a. Complications of Blood transfusion. [12¹/₂]
 - b. Stem cells and its uses. [12¹/₂]
-

MD[Pediatrics]
BF/2008/05

Principles and Practice of Pediatrics
[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss feeding of a Low birth weight baby in a neonatal Unit. [30]

 2. **Discuss briefly:**
 - a. Growth monitoring. [20]
 - b. Diabetic Keto-acidosis. [20]

 3. **Write short notes on:**
 - a. Iron Chelators. [10]
 - b. Philadelphia Chromosome. [10]
 - c. Neurocysticercosis. [10]
-

MD[Pediatrics]

BF/2008/05

Preventive & Social aspects of Pediatrics and
Diseases of Neonates & Infants
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Child labour in India - Present status. [30]

 2.
 - a. Discuss the benefits to the infants whose mothers administered steroids antenatally. [15]
 - b. Discuss linkage between bronchiolitis and bronchial asthma. [15]

 3. **Write short notes on:** [4×10=40]
 - a. At birth care and follow up of baby born to HIV Positive mother.
 - b. Peripheral nerve injuries in new born.
 - c. Pathophysiology of post natal complications in an infant born to Diabetic mother.
 - d. Young infant feeding.
-

MD[Pediatrics]

BF/2008/05

Recent advances in Pediatrics
[Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

All Questions carry equal marks

1. Refractory Kawasaki disease - How will you treat?
 2. At risk group in Coeliac disease.
 3. Therapeutic uses of Medium chain triglycerides.
 4. Antenatal management of Neonatal medical diseases.
 5. Prevention of Antibiotic Resistance in ICU.
 6. Effects of Oral zinc in the treatment of acute and Persistent diarrhoea.
 7. Cord blood banking for Potential future transplantation.
 8. Pediatric interventional Cardiac Catheterisation.
 9. Neurosurgical management of Pediatric epilepsy.
 10. Current status of Iron Chelation with deferasirox.
-

MD[Forensic Medicine]

BF/2008/05

Basic Sciences as applied to Forensic Medicine
[Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. A bundle of bones is sent to you for Medicolegal examination. How will you examine? Give your opinion regarding possible medicolegal questions. [10+25=35]

 2. Discuss how can you establish a Poison information center in you institution. [35]

 3. **Write short notes on:** [3x10=30]
 - a. Air embolism.
 - b. Comments on PNDT Act.
 - c. Section 320 IPC.
-

MD[Forensic Medicine]

BF/2008/05

**Forensic medicine including other clinical subjects as applied to
Forensic medicine
[Paper-II]**

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe various types of lesions seen in head injuries. Discuss mechanism of their production. [35]

 2. Define medical negligence. How will you proceed to investigate death on operation table? [35]

 3. **Write short notes on:** [30]
 - a. Management of Mass disaster.
 - b. Age of subdural Hematoma.
 - c. Brain mapping.
-

MD[Forensic Medicine]

BF/2008/05

Forensic Toxicology and Medical Jurisprudence
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. What do you understand by 'Hooch Tragedy'? Describe the signs and symptoms, fatal dose and period, postmortem finding and method of sending Viscera and treatment of poisoning by 'Wood Alcohol'.
[35]
2. Discuss the question of Ethical and Medical negligence during the practice of Medical profession.
[35]
3. **Write notes on:** [15+15]
 - a. Section 53 of CrPC.
 - b. Donation of Cornea.

MD[Forensic Medicine]

BF/2008/05

**Forensic pathology including forensic immunology and recent
advances
[Paper-IV]**

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss the patho-physiology of formation of 'Emboli'. How will you demonstrate 'air embolism' and 'Fat embolism' during autopsy. [34]

 2. Discuss the salient features of 'Human Organ Transplantation Act' and loopholes in it. What are your views about swapping of organs? [33]

 3. **Write short notes on:** [33]
 - a. Waterboarding.
 - b. HLA system.
 - c. DNA typing and courts.
-

MD[Psychiatry]
BF/2008/05

Basic Sciences as related to Psychiatry
[Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

Part-A

1. Neuro-imaging techniques of the brain. [15]
2. Describe the structure and functions of Frontal lobe. [15]
3. **Write short notes on:** [2x10=20]
 - a. Sodium Valproate as mood stabilizer
 - b. Drugs used for attention deficit disorder.

Part-B

4. Describe and evaluate the changing social scenario of India. Give your opinion on its impact for the cultural security. [30]
 5. **Write short notes on:** [2x10=20]
 - a. Carl Jung.
 - b. Alpha biofeed back.
-

MD[Psychiatry]
BF/2008/05

Clinical Psychiatry
[Paper-II]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Discuss the approaches towards management of attempted suicide. [30]

2. Write brief essays on:
 - a. Positive And Negative Symptoms Scale [PANSS]. [15]
 - b. Varenicline. [15]

3. Write short notes on: [4x10=40]
 - a. Risk factors for Schizophrenia.
 - b. Clinical and biological correlates of treatment response.
 - c. Mangement of social phobia.
 - d. Dystrobrevin Binding Protein 1 [DTNBP1]

MD[Psychiatry]
BF/2008/05

Psychiatric Theory & Psychiatric Specialities
[Paper-III]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. **Write long essay on:** [30]
Recent advances in etiology and management of ADHD.

 2. **Write brief essays on:**
 - a. Suicide in adolescents. [20]
 - b. Epidemiology of psychiatric disorders in India. [20]

 3. **Write short notes on:**
 - a. Management of Somatoform pain disorder. [10]
 - b. Neurophysiology of memory. [10]
 - c. Projective techniques. [10]
-

MD[Psychiatry]
BF/2008/05

Recent Advances in Psychiatry
[Paper-IV]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe in detail:
Strengths and weaknesses of National Mental Health Programme. [30]

 2. Describe briefly:
 - a. Relevance of Psychoanalytically Oriented Psychotherapy. [20]

 - b. Role of NGOs in drug de-addiction. [20]

 3. Write short notes on:
 - a. Use of PET scan in psychiatry. [10]

 - b. Ethics of clinical drug trial research. [10]

 - c. Pharmacological management of Somatoform disorders. [10]
-

MD[Pediatrics]

BF/2008/05

Basic Sciences as related to Pediatrics
[Paper-I]

Time : 3 Hours

M.M.: 100

Note: Attempt all questions.

1. Describe CSP physiology. Write classification, etiology, clinical features, diagnosis and management of Hydrocephalus. [20]
 2. Discuss physiology of Hemostasis. Write diagnostic approach to bleeding disorder. [20]
 3. Describe Iron metabolism. Write sequence of changes in Iron deficiency. [20]
 4. Describe body mass index, Ponderal index and Quetlet's index. [10]
 5. **Write short notes on:** [10]
 - a. Acellular Pertussis vaccine.
 - b. Pre and Post exposure schedule for rabies vaccine.
 6. Discuss Immuno-modulator therapies. [10]
 7. **Discuss in brief:** [10]
 - a. Standard deviation.
 - b. Chi Square test.
 - c. Sensitivity and Specificity.
 - d. Predictive Values.
-