D.C.H.
[Diploma in Child Health]

BF/2014/05

Basic Sciences as related to Paediatrics

[Paper –I]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Causes and differential diagnosis of microcytic hypochromic anemia. [10]

2. Pathogenesis of hepatic encephalopathy. [10]

3. Naturally occurring anticoagulant. [10]

4. Neonatal screening for thyroid disorders. [10]

5. PET scan. [10]

6. Immunization during adolescence. [10]

7. Principles of management of HIV exposed infants. [10]

8. Pathology of renal tubular acidosis. [10]

9. Immunophenotypnig of acute leukemia. [10]

10. West syndrome. [10]

D.C.H.
[Diploma` in Child Health]

BF/2014/05

Principles and Practice of Pediatrics

[Paper –II]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Discuss etiology clinical features and management of hyponatremia. [10]

2. Write down management of severe acute malnutrition. [10]

3. Discuss prevention & management of hypothermia in newly born child. [10]

4. Write short note on acute flacid paralysis. [10]

5. Write note on iron chelation therapy. [10]

6. Discuss differential diagnosis of wheezing child. [10]

7. Enumerate causes of proteinuria in child. [10]

8. Discuss clinical features & management of congenital hypothyroidism. [10]

9. Write note on febrile convulsions. [10]

10. Discuss management of congestive heart failure in pediatric age group. [10]

D.C.H.
[Diploma in Child Health]

BF/2014/05

Preventive & Social aspects of Pediatrics and Diseases of Neonates & Infants

[Paper –III]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. What are age independent growth parameters. [10]

2. Explain hand washing technique. [10]

3. Describe presenting signs and symptoms of common congenital anomalies at birth. [10]

4. What do you understand by the term balanced diet. [10]

5. What is low osmolar oral rehydration therapy. [10]

6. Describe temper tantrums in children. [10]

7. What are five cleans. [10]

8. Role of national rural health mission in improving a child's health. [10]

9. What are the types of anemia in children. Discuss causes, clinical features and management of iron deficiency anemia. [10]

10. Importance of vitamin K in a newborn. [10]

D.M.R.T.
[Diploma in Medical Radiology Diagnosis]

BF/2014/05

Basic Science and Physics as applied to Radiotherapy

[Paper–I]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Describe the various interactions of ionizing radiation with matter with the clinical significance of each type of interchain. [25]

2. Discuss the cell survival curve and describe the cell cycle with its clinical significance. [25]

3. Describe the construction of linear accelerator. What are its advantages over Telecobalt unit? [25]

4. **Write short notes on:** [5x5=25]

   a. Wedge filter.
   b. Principles of Radiation Protection.
   c. Acute Radiation Reactions.
   d. Brachytherpay and its types.
   e. Immobilisation devices.

D.M.R.T.

[Diploma in Medical Radiology Diagnosis]

BF/2014/05

Principles of Radiotherapy including Radiobiology

[Paper–II]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Discuss in detail the radiotherapeutic management of gliomas. [25]

2. Describe the role of chemo-radiation in the management of laryngeal and pharyngeal cancers. [25]

3. Describe the role of brachytherapy in management of cervical cancers. [25]

4. **Short note:** [5x5=25]

   a. Oxygen enhancement ratio.
   b. Hyperthermia.
   c. L-Q Model.
   d. Proton therapy.
   e. Multileaf collimators.

D.M.R.T.
[Diploma in Medical Radiology Diagnosis]

BF/2014/05

Clinical Practice of Radiotherapy and Cancer Chemotherapy

[Paper–III]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Describe the management of a patient with left sided T2N1M0 carcinoma breast. [25]

2. Describe the management of Stage IIA bulky cancer of the cervix. [25]

3. Classify bone tumors. Describe the management of Ewing's sarcoma of the right tibia in a 13 year old boy. [25]

4. **Write short note:** [5x5=25]

   a. APBI
   b. IGRT
   c. Transtuzumab
   d. PET in oncology
   e. TKI's in lung cancer.

D.G.O.
[Diploma in Gynaecology & Obstetrics]

BF/2014/05

Basic Sciences as related to Obstetrics & Gynaecology

[Paper –I]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Discuss the different types of pelvis seen in females. Briefly write the tests to diagnose cephalo pelvic disproportion. [10]

2. Narrate cardiovascular system changes in pregnancy. How will you manage a case of rheumatic heart disease class II in labour? [10]

3. How is progesterone synthesized in body? Detail the use of progesterone and progestogens in obstetrics & Gynecology. [10]

4. Discuss development of Mullerian system. Critically evaluate obstetric outcome in patients with Mullerian anomaly. [10]

5. Briefly write on physiology of puberty. How will you manage a girl of 16 year brought with h/o primary amenorrhea? [10]

6. Narrate normal puerperium. How will you manage a case of puerperal pyrexia? [10]

7. Discuss physiology of menopause. How will you prescribe HRT for a patient with surgical menopause? [10]

8. Draw and label branches of uterine artery. Discuss the role of uterine artery embolisation in obstetrics & Gynecology. [10]

9. Narrate physiology of maturation. Briefly discuss treatment of SUI (Stress urinary incontinence). [10]

10. Write briefly on follicular phase in ovary. Discuss controlled ovarian hyperstimulation and intra vterine insemination. [10]

D.G.O.
[Diploma in Gynaecology & Obstetrics]

BF/2014/05

Principles & Practice of Obstetrics & Gynaecology & diseases of new born babies

[Paper –II]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Write management of G_2 P_1 Ao with preterm PROM at 32 weeks of gestation. [10]
2. Write the indications & methods of induction of labour in primgravida. [10]
3. Management of case of previous caesarean section at term pregnancy. [10]
4. Write about the indications & uses of progesterone only contraceptives. [10]
5. Describe different methods of sterilisation in a 32 year old woman. [10]
6. Describe the management of a 25 year old woman having menorrhagia. [10]
7. How will you take care of a newborn baby? [10]
8. Describe the symptoms, signs & management of 40yr old woman with cancer cervix stage-I. [10]
9. Enumerate the complications of diabetes mellitus in pregnancy & labour & their management in short. [10]
10. Write about the drugs & regimes used in chemotherapy for the treatment of ovarian cancer [10]

D.G.O.
[Diploma in Gynaecology & Obstetrics]

BF/2014/05

Recent advances in Obstetrics & Gynaecology

[Paper –III]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Management of vault prolapse. [10]

2. Discuss the role of NST and color Doppler in management of IUGR. [10]

3. Discuss role of laparoscopy in management of endometriosis? [10]

4. What are recent advances in management of PCOS? [10]

5. Management of SUI. [10]

6. How would you manage a case of pregnancy with heart disease? [10]

7. Needle Stick injuries (NSI). [10]

8. Discuss fetal reduction. [10]

9. Management of chorioamnionitis. [10]

10. Emergency Rescue Circlage Operation. [10]

D.O.M.S.
[Diploma in Ophthalmic Medicine and Surgery]

BF/2014/05

Ocular Anatomy, Physiology and Pathology

[Paper–I]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1.	Structure of lid.	[10]
2.	Extra ocular muscles.	[10]
3.	Anatomy of optic nerve.	[10]
4.	Accommodation.	[10]
5.	VEP (Visually evoked potential).	[10]
6.	Ophthalmic ultrasound.	[10]
7.	Retinoblastoma.	[10]
8.	Phthisis bulbi.	[10]
9.	Diplopia.	[10]
10.	Use of cycloplegics and function of atropine.	[10]

D.O.M.S.
[Diploma in Ophthalmic Medicine and Surgery]

BF/2014/05

General Ophthalmology including Ophthalmic Surgery

[Paper–II]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Differential diagnosis of follicular conjunctivitis. [10]

2. Evaluation of donor corneal tissue. [10]

3. Differential diagnosis of granulomators anterior uveitis. [10]

4. Necrotizing scleritis. [10]

5. Complicated cataract. [10]

6. Par plana vitrectomy. [10]

7. Infantile nystagmus syndrome (INS). [10]

8. Optic tract syndrome. [10]

9. Ocular hypertension. [10]

10. Management of diabetic macular oedema. [10]

D.O.M.S.

[Diploma in Ophthalmic Medicine and Surgery]

BF/2014/05

Optics, Refraction & Recent advances in Ophthalmology

[Paper–III]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1.	Hypermetropia.	[10]
2.	Contrast sensitivity.	[10]
3.	Toric IOL.	[10]
4.	Non-contact tometers.	[10]
5.	Corneal collagen cross linkage (C3R).	[10]
6.	Drug delivery implants in ophthalmology.	[10]
7.	Dry eye management advances.	[10]
8.	Antimetabolites uses in ophthalmology.	[10]
9.	Amblyopia.	[10]
10.	FFA.	[10]

D.M.R.D.
[Diploma in Medical Radiology Diagnosis]

BF/2014/05

Basic Sciences as related to Radiology

[Paper–I]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Principle of Doppler ultrasound. [10]

2. Portable radiography. [10]

3. Define scatter radiation. Discuss briefly the parameters which influence scatter radiation and methods to reduce scatter radiation. [10]

4. Write in brief the principle and types of digital radiography. Outline its advantages and disadvantages. [10]

5. Discuss principle various techniques of elastography and their clinical applications. [10]

6. Describe techniques of MRCP. What are the advantages and disadvantages of MRCP vs ERCP. [10]

7. Describe the technique of CT coronary angiography. [10]

8. What do you understand by tissue harmonic imaging. How is it useful during sonographic evaluation of small parts of body. [10]

9. TRUS. [10]

10. Principles of CT angiography. [10]

D.M.R.D.
[Diploma in Medical Radiology Diagnosis]

BF/2014/05

Physics as applied to Medical Radiology

[Paper–II]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Discuss magnification in a radiographic image. [10]

2. Describe fundamentals of MR angiography. [10]

3. Discuss the advantages and disadvantages of image intensifier. [10]

4. Discuss the factors on which X-ray emission depends. [10]

5. **Write short note:-** (Any one) [10]
   a. Gamma camera.
   b. Harmful affects of radiation on body.

6. What is the effect of scattered radiation on contrast? How can you reduce the production of scattered radiation? [10]

7. **Write short note:-** (Any one) [10]
   a. Luminescent materials and role of luminescence in clinical practice.
   b. Effect of screens on image sharpness.

8. How can you achieve a filmless department in diagnostic radiology? [10]

9. **Write short note:-**
   a. Patient radiation dose in CT. [5]
   b. Structure of an X-ray film. [5]

10. **Write short note:-**
    a. Method of assessing a focal spot. [5]
    b. Anode structure. [5]

D.M.R.D.
[Diploma in Medical Radiology Diagnosis]

BF/2014/05

Diagnostic Radiology and Recent advances

[Paper–III]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. What is HRCT. Discuss its role in evaluation of diffuse parenchymal lung disease. [10]
2. Describe the technique and ultrasound features in acute appendicitis. [10]
3. Radiological evaluation of suspected small bowl obstruction. [10]
4. Role of HRCT in sarcoidosis. [10]
5. Plain X-ray findings in pulmonary venous hypertension. [10]
6. Describe virtual bronchoscopy. [10]
7. Role of chest radiography in emergency situations. [10]
8. Coronary artery calcium scoring. [10]
9. CT enteroclysis. [10]
10. Imaging of neuroendocrine neoplasms of pancreas. [10]

D.A.
[Diploma in Anaesthesia]

BF/2014/05

Basic Sciences, Principles and Practice as applied to Anaesthesiology

[Paper –I]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Describe the anatomy of epidural space. Name the complications associated with epidural anaesthesia. [10]

2. Classify breathing circuits. Describe the functional analysis of Bain's circuit. [10]

3. Classify and briefly describe different types of hypoxia. [10]

4. Briefly describe oxygen dissociation curve. Elucidate the factors that affect oxygen delivery. [10]

5. Classify hypothermia. Discuss its effects on different systems of the body. [10]

6. What are the commonly used drugs in the treatment of chronic pain? Discuss the pharmacology of any one. [10]

7. Implications of regional anaesthesia in a patient on antiplatelet therapy. [10]

8. Anatomical physiological and pharmacological differences between a neonate and an adult. What are their implications? [10]

9. Thromboelastography in anaesthesia. [10]

10. Describe the pharmacology of Dexmedetomidine. [10]

D.A.
[Diploma in Anaesthesia]

BF/2014/05

Clinical Sciences as applied to Anaesthesiology

[Paper –II]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Anaesthetic management of a 3 month old baby with congenital hydrocephalus listed for insertion of ventriculo-peritoneal shunt. The baby was born at 32 weeks of gastational age and presently weights 3½ kg. [10]

2. Describe anaesthetic management of 28 years female patient of a weight of 74 kgs scheduled to undergo laproscopic cholecystectomy. [10]

3. Remifentenil in anaesthesia practice. [10]

4. Role of ambulatory anaesthesia service(Day stay surgery) in today practice. Discuss facility and staffing consideration and contraindication to day surgery. [10]

5. Prospective evaluation, preparation and anaestheic management of primi with hypertension(uncontrolled) for emerging cesarean section at 37 weeks of pregnancy. [10]

6. Intrinsic PEEP (auto) versus extrinsic PEEP (applied). [10]

7. Superior laryngeal block, indication, technique and complication. [10]

8. Anaesthetic management of a patient with simple non toxic goiter for thyroidectomy. [10]

9. Describe the anaesthetic management and post operative complications of the patient for cleft lip. [10]

10. Isofluence verses desfluence. [10]

D.A.
[Diploma in Anaesthesia]

BF/2014/05

Recent Advances in Anaesthesiology, Pain, Intensive Care and Resuscitation

[Paper –III]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Discuss current guidelines of sepsis management in intensive care. [10]

2. Enumerate etiological features and management of pulmonary oedema. [10]

3. Write briefly indications and limitations of pulse oxymetery. [10]

4. **Compare following:** [10]
   a. Oxygen flush valve VS Oxygen fail safe valve.
   b. Proseal- LMA VS I-Gel

5. Write pain relief in gangrene foot. [10]

6. Write briefly anatomy of stellate ganglion. Write its blockade and indications. [10]

7. Write briefly on Dexmedetomidine. [10]

8. Discuss anatomy of femoral triangle. Describe 3 in 1 block. [10]

9. Write short note on Sellick's manenvers. [10]

10. Write briefly on CPR-newer guidelines. [10]

D.L.O.
[Diploma in Laryngolgoy & Otology]

BF/2014/05

Basic Sciences as related to Ear, Nose & Throat

[Paper –I]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Anatomy of lateral wall of nose. [10]
2. Cochlear hearing loss. [10]
3. Principles of radiotherapy & chemotherapy in ENT. [10]
4. Surgical anatomy of thyroid gland. [10]
5. Anatomy of facial nerve. [10]
6. Developmental anatomy of middle and inner ear. [10]
7. Assessment of vestibular functions. [10]
8. Middle ear implants. [10]
9. Tympanometry & OAE. [10]
10. Roll of CT angiography in ENT. [10]

D.L.O.
[Diploma in Laryngolgoy & Otology]

BF/2014/05

Principles and Practice of Ear, Nose & Throat

[Paper –II]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Theories of origin of branchial cysts & management. [10]

2. Blow out fracture of maxilla. [10]

3. Role of P.E.T. Scan in ENT. [10]

4. Sudden S.N. deafness. [10]

5. Surgical approaches for para-pharyngeal space tumours. [10]

6. Endoscopic hypophysectomy. [10]

7. BERA. [10]

8. Complications of stapedotomy. [10]

9. Complications of radiotherapy in head & neck. [10]

10. Evaluation of acoustic neuroma by CAT scan & MRI. [10]

D.L.O.
[Diploma in Laryngolgoy & Otology]

BF/2014/05

Operative Surgery of ENT and recent advances

[Paper –III]

(New Scheme w.e.f. 2011 admission)

Time : 3 Hours M.M.: 100

Note: Attempt all questions.
All questions carry equal marks.
Illustrate your answer with suitable diagrams.

1. Discuss surgical considerations & surgical techniques of surgery in cochlear implants. [10]

2. Discuss surgical management of angio fibroma. [10]

3. Surgical management of CSF rhinorrhea. [10]

4. Indications & advantages of sialoendoscopy. [10]

5. Discuss indications & limitations of PET scan. [10]

6. Discuss indications & surgery for otosclerois. [10]

7. Discuss surgical management of facial nerve paralysis. [10]

8. Discuss endoscopic optic nerve decompression. [10]

9. Discuss new development in head & neck cancer treatment. [10]

10. Discuss middle ear implantable hearing devices. [10]

PG Diploma in Sports Medicine

BF/2014/05

Sports Physiology and Allied Basic Sciences

[Paper-I]

Time : 3 Hours M.M. : 80

Note : Attempt all questions.

1. Describe the fast and slow muscle fibres. Add a note on myoglobin. [14]

2. Write in detail the sources of energy for muscular work. [14]

3. **Describe briefly:**
   a. Circulatory haemodynamics during exercise. [7]
   b. Draw and label electrocardiogram. [5]

4. Write the Newton's law of motion and its application in sports. [14]

5. **Briefly discuss:**
   a. Homeostasis during exercise. [7]
   b. Motor coordination. [5]

6. Responses and adaptation of respiratory system to training and its evaluation during exercise. [14]

PG Diploma in Sports Medicine

BF/2014/05

Medical Aspects of Sports

[Paper-II]

Time : 3 Hours M.M. : 80

Note : Attempt all questions.

1. Discuss IOC rules relating to doping. what are standard means of such drug usage. [15]

2. **Write notes on**:
   a. Pre-competition diet. [6]
   b. Medical problems related to swimming pool. [6]
   c. High attitude pulmonary oedma. [6]

3. **Briefly describe:**
   a. Various cold induced injury and their treatment. [7]
   b. A balanced diet. How is fat metabolised. [7]

4. Discuss in detail pathogenesis of atherosclerosis. [15]

5. **Write notes on**:
   a. Effect of anemia on sports activity. [6]
   b. Role of motivation in performance. [6]
   c. Physical activity during pregnancy. [6]

PG Diploma in Sports Medicine

BF/2014/05

Surgical Disciplines, Sports Injuries, Physiotherapy & Rehabilitation

[Paper-III]

Time : 3 Hours M.M. : 80

Note : Attempt all questions.

1. A sports person sustained injury to his knee. How will you assess & proceed. [15]

2. **Write short notes on:**
   a. Short wave diathermy. [5]
   b. Mortons metatarsalgia. [5]

3. **Write short notes on:**
   a. Fibro myalgia. [5]
   b. Loose bodies. [5]

4. **Write short notes on:**
   a. Mc Murrays test. [5]
   b. Supraspinatus tendinitis. [5]

5. **Write short notes on:**
   a. Whiplash injury. [7]
   b. Carpal tunnel syndrome. [7]
   c. TENS. [6]

6. **Write short notes on:**
   a. Sciatica. [5]
   b. NSAID. [5]
   c. KAFO. [5]