

MPT [1st Year]

BF/2021/10

Computers, Research Methodology & Biostatistics (MP104)

[Common for all Specialties]

Time: 3 Hours.

Max Marks =80

Note: 1.) *Attempt all questions.*

2.) **USE SEPARATE ANSWER BOOK FOR EACH PART.**

3.) *The Student must write Q.P. Code in the space provided on the Title page of the respective Answer Book.*

UNIT-I

[60 Marks]

QP Code: MPM104 Research Methodology & Biostatistics

NOTE: 1. NON-SCIENTIFIC CALCULATOR IS ALLOWED.

2. LOG TABLE MAY BE USED IF REQUIRED.

Long Essay

1x20=20

Note: *Attempt any one question which carries 20 marks.*

1. Describe levels of measurement of variable; and, give example of each level of measurement of variable.

OR

2. Describe merits and demerits of cross sectional, case- control and Cohort study design.

Note: *All Questions are compulsory. Each carries 10 marks.*

Short Essay

4x10=40

3. Define the following study:

(i) One tailed versus two- tailed hypothesis

(ii) Power of a test

(iii) Non sampling errors

(iv) Sources of variation in observations for a variable

4. Following is the distribution of BMI in a sample of 50 individuals:

BMI	15 - 20	21 - 25	26 - 30	31 - 35	36 - 40
Frequency	8	25	10	5	2

Compute median BMI.

5. What are the characteristics of a Good research question?

6. Following are the marks obtained by 10 students in a class:

8, 6, 4, 8, 6, 4, 8, 6, 8, 4

Compute variance for the above 10 observations.

UNIT II

[20 Marks]

QP Code: MPR105 Computer

1. What is a Computer? Design a block diagram of computer. How computer works, explain its functioning. [5]

2. What do you mean by MS- Office? What are various features of MS-Excel? [5]

3. How are Computers important in medical science? What are various applications of computer in medical services. [5]

4. What do you mean by Statistical methods? Explain one statistical technique in details with examples. [5]

MPT [2nd Year]

BF/2021/10

Skill Enhancing Studies

(Ethics, Educational Technology & Medico legal aspects) MP-204/MPP-504

[Common for all Specialties]

Time: 3 Hours.

Max Marks =80

Note: 1.) *Attempt all questions.*

2.) ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.

3.) NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED

4.) *The Student must write O.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note: Attempt any one question which carries 20 marks.

I. Long Essay 1x20=20

1. Discuss in details about various ethical issues in physiotherapy.

OR

2. Discuss various theories of teaching. Explain the relationship between teaching and learning.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

II. Short Essay 6x10=60

3. Differentiate between formal and informal type of education.

4. Discuss the principles and various methods of teaching.

5. Write in detail about various standardized tools used for measurement and evaluation of education.

6. Discuss current issues and trends in physiotherapy education in India.

7. Write in detail about record keeping in physiotherapy clinical setting.

8. What are the policies and procedures required for management of a physiotherapy department?

QP Code: MPO101

MPT in Orthopedics [1st Year]

BF/2021/10

Review of Basic Sciences (MPO-101)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) **The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

1x20=20

1. Lumbosacral plexus and its clinical importance.

OR

2. Write classification of Muscles and explain their structure in detail.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

6x10=60

3. Regulation of blood pressure
4. Ankle joint
5. Functions of vitamins & minerals
6. Excitation contraction coupling
7. Edema
8. NSAIDS
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MPT in Orthopedics [1st Year]

BF/2021/10

Review of Basic Therapeutics (MPO 102)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

1x20=20

1. (a) Discuss Gait cycle in detail with its variable & determinants?
(b) Discuss Kinetics & Kinematics analysis of Gait cycle from Heel strike to toe off?

OR

2. (a) Classify currents? Discuss production, construction of SWD with its indication, contraindication & physiological effects?

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

6x10=60

3. Define Goniometry. Give its principles & discuss different type of end feel? [10]
4. **Write Briefly about:** [10]
(a) Mention about the ballistic stretching?
(b) Discuss stress strain curve?
5. Soft tissue manipulation with special emphasis on Percussive technique? [10]
6. Role of functional re- education in Hemiplegia? [10]
7. **Write Short Note on:** [10]
(a) Russian current?
(b) Didynamic current?
8. Define Posture? Classify posture & give measurement of scoliotic posture? [10]
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MPT in Orthopedics [1st Year]

BF/2021/10

Advanced Therapeutics and Diagnosis (MPO 103)

Time: 3 Hours.

Max Marks =80

Note: 1.) *Attempt all questions.*

2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**

3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**

4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note : Attempt any one question which carries 20 marks.

Long Essay

1x20=20

1. What do you mean by EMG? Write in detail about its reading procedure, protocol, normal and abnormal potentials of EMG.

OR

2. Describe in detail about taping, its principles of application and removal, indications and contraindications.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay

6x10=60

3. What is LASER? Describe in detail about its use in physiotherapy.

4. What do you mean by Nerve conduction velocity? Discuss procedure and calculation of Motor nerve conduction velocity and its uses.

5. **Write short notes on following:**

(a) Patient monitoring in Intensive Care Unit [5]

(b) Uses of Biofeedback [5]

6. Write about principles, application and uses of Muscle energy techniques.

7. Explain in detail about principles and uses of Proprioceptive neuromuscular facilitation techniques.

8. Write in detail about the principles and techniques of Mulligan mobilization.

MPT in Orthopaedics [2nd Year]

BF/2021/10

Physical Therapy in Orthopedic Conditions (MPO 201)

Time: 3 Hours.

Max Marks =80

- Note:**
- 1.) *Attempt all questions.*
 - 2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
 - 3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
 - 4.) **The Student must write O.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

[1x20=20]

1. Outline the causes of Shoulder impingement syndrome, give physiotherapeutic plan from acute stage to return to sports.

OR

2. What is Observational gait analysis? Explain in detail kinematic analysis of trunk and upper extremity in gait cycle.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay.

[6x10=60]

3. Hand function tests.
 4. Core muscle training and its importance in Low back pain
 5. Splints used to correct deformity in Rheumatic hand
 6. Discuss various Orthopedic crutch gaits with pre crutch training programme.
 7. Discuss the role of physiotherapy in Burns.
 8. Physiotherapy management in Compartment syndrome
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MPT in Orthopaedics [2nd Year]

BF/2021/10

Spinal Disorders and Rehabilitation (MPO 202)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.
3.) NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED
4.) *The Student must write O.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

[1x20=20]

1. Describe the process of nomenclature of Spinal Cord Injuries (SCIs). Plan a suitable rehabilitation program for a patient with complete spinal cord injury at T9 level.

OR

2. Differentiate the Flexion Bias and Extension Bias. Explain the McKenzie's Extension Exercises and William's Flexion Exercises for Lower Back Conditions.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay

[6x10=60]

3. Explain Fryette's Laws of Spinal Motion. Describe all three Fryette's Laws.
4. What is Piriformis Syndrome (Pseudosciatica) and its therapeutic exercises?
5. Elaborate the Scoliosis and its Physiotherapy Management.
6. Explain the structure and functions of Inter-vertebral Disc (IVD). Write the effects of Exercise & Aging on Inter-vertebral Disc.
7. Write in detail about the Intradural- Extramedullary Spinal Tumors.
8. What is Pars Interarticularis defect and the problems arise due to it.

MPT in Orthopaedics [2nd Year]

BF/2021/10

Hand Rehabilitation (MPO 203)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) **The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

[1x20=20]

1. Write in detail about Flexor tendon injuries in hand and their physiotherapy management.

OR

2. Explain in detail various types of Hand orthosis used in hand rehabilitation.

Section-B

Note : All Questions are compulsory. Each question carries 10 marks.

Short Essay

[6x10=60]

3. Write the principles of management in Burns of hand in detail.
 4. Explain the rehabilitation of Hand after a crush injury.
 5. Explain about the biomechanics of various pulleys in hand with their detailed function.
 6. Write about the Hansen's disease in hand.
 7. Write in detail about the Rheumatoid hand deformities and their management.
 8. Enumerate various Arches of hand with their functions in detail.
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QP Code: MPN101

MPT in Neurology [1st Year]

BF/2021/10

Review of Basic Sciences (MPN 101)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) **The Student must write O.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note : Attempt any one question which carries 20 marks.

Long Essay.

[1x20=20]

1. Describe anatomy and physiology of ventricular system of Brain. Elaborate functions, clinical conditions, production & circulation of CSF?

OR

2. Classify Muscle relaxants. Describe in detail mechanism of action, indications, side effects, dosage, effects and contraindications of Chlorzoxazone?

Section-B

Note : All Questions are compulsory. Each question carries 10 marks.

Short Essay.

[6x10=60]

3. What are Pulmonary function tests? Explain their role in planning cardiac rehabilitation?
4. Write a note on Krebs's cycle?
5. Explain anatomy of Spinal cord? Discuss briefly about stretch reflex?
6. What is Necrosis? Explain its types and pathology in detail?
7. Explain the physiological mechanism of Pain control?
8. Classify drugs acting on CNS? Write a note on sedatives- hypnotics?

QP Code: MPN102

MPT in Neurology [1st Year]

BF/2021/10

Review of Basic Therapeutics(MPN 102)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note : Attempt any one question which carries 20 marks.

Long Essay.

[1x20=20]

1. Discuss in detail about Dynamic stabilization at shoulder joint? Explain scapulohumeral rhythm?

OR

2. Discuss in detail about basic principle, indications and contraindications of Hydrotherapy?

Section-B

Note : All Questions are compulsory. Each question carries 10 marks.

Short Essay.

[6x10=60]

3. Discuss in detail about biophysical effects of ultrasound? Explain cavitation?
 4. Explain Grades of MMT? Write MMT of biceps and serratus anterior?
 5. Explain modes, indications and applications of Isokinetic dynamo-meter?
 6. What is Reciprocating gait orthosis? Explain its design and application?
 7. Discuss in detail about Frenkel's exercise?
 8. Discuss in detail about basic principle of IFT? Explain frequency sweep?
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QP Code: MPN103

MPT in Neurology [1st Year]

BF/2021/10

Advanced Therapeutics and Diagnosis(MPN 103)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note : Attempt any one question which carries 20 marks.

Long Essay.

[1x20=20]

1. Discuss in detail about production of LASER? Explain various types of LASER used in physiotherapy practice.
- OR
2. Discuss in detail about assessment and treatment of Carpal tunnel syndrome using Butler?

Section-B

Note : All Questions are compulsory. Each question carries 10 marks.

Short Essay.

[6x10=60]

3. Discuss briefly about principles and stages of Brunnstrom?
 4. Discuss in detail about assessment and physiological & therapeutic effects of manipulation?
 5. Discuss in detail about various diagnostic apparatus used for neurological patient?
 6. Discuss briefly about principles and techniques of MRP?
 7. Discuss in detail about various techniques used in PNF? Explain D1 flexion pattern for upper limb?
 8. Discuss briefly about Myofascial release techniques used in neck pain patients?
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MPT in Neurology [2nd Year]

BF/2021/10

Physical therapy in Neurological Conditions (MPN 201)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) **The Student must write O.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note : Attempt any one question which carries 20 marks.

Long Essay.

1x20=20

1. Write the assessment of 7th cranial nerve, dysfunction and management.

OR

2. Discuss in detail about assessment and management of Parkinsons disease.

Section-B

Note : All Questions are compulsory. Each question carries 10 marks.

Short Essay.

6x10=60

3. Explain Rancho Los Amigos Scale and it's application in physiotherapy intervention.
4. Neural basis of consciousness
5. Constrain induced movement therapy?
6. Post- polio syndrome- Role of physiotherapy.
7. Causes of cerebellar dysfunction and its assessment ?
8. Gait training in T₁₂ level spinal injury patient in Rehas setup?
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MPT in Neurology [2nd Year]

BF/2021/10

Physiotherapy in Neurosurgical Conditions (MPN 202)

Time: 3 Hours.

Max Marks =80

- Note:**
- 1.) *Attempt all questions.*
 - 2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
 - 3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
 - 4.) **The Student must write O.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note : *Attempt any one question which carries 20 marks.*

Long Essay.

1x20=20

1. Discuss in detail about various types of Spinal injuries? Explain about clinical features, assessment and management of Cauda Equina Syndrome?

OR

2. Discuss in detail about pathophysiology, clinical features, assessment and physiotherapy management of a patient who has Head injury and admitted in ICU?

Section-B

Note : *All Questions are compulsory. Each question carries 10 marks.*

Short Essay.

6x10=60

3. Discuss in detail about causes, clinical features and management of Cerebral aneurysm?
 4. Discuss in detail about technique, complications and pre-post surgical physiotherapy management of Craniotomy?
 5. Discuss in detail about Motor-sensory re-education and its training?
 6. Discuss in detail about pre & post surgical assessment and physiotherapy management of Discectomy?
 7. Discuss in detail about causes, clinical features and management of Median nerve injury?
 8. Discuss in detail about pathophysiology, clinical features and surgical management of Cerebral Edema?
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QP Code: MPN203

MPT in Neurology [2nd Year]

BF/2021/10

Physical Therapy in Paediatric Neurology Conditions (MPN 203)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) **The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note : Attempt any one question which carries 20 marks.

Long Essay.

1x20=20

1. Discuss various types of Learning disabilities and their management.

OR

2. Neurophysiological basis of Spasticity and its management.

Section-B

Note : All Questions are compulsory. Each question carries 10 marks.

Short Essay.

6x10=60

3. Physiotherapy in Muscular dystrophy.
4. Role of Limbic system on motor control and learning.
5. Neonatal reflexes
6. Retinopathy of prematurity
7. Rehabilitation in herpes simplex and Japanese encephalitis
8. Discuss how to examine a New born child.
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MPT in Sports [1st Year]

BF/2021/10

Review of Basic Sciences (MPS101)

Time: 3 Hours.

Max Marks =80

Note: 1.) *Attempt all questions.*

2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**

3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**

4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note: *Attempt any one question which carries 20 marks.*

Long Essay

1x20=20

1. Discuss Hip Joint under following headings:

[4x5=20]

(a) Anatomy of Hip joint

(b) Static and Dynamic stabilizers

(c) Movements and Muscles

(d) Applied Anatomy

OR

2. Discuss in detail about Brachial plexus and its applied anatomy. [20]

Section-B

Note: *All Questions are compulsory. Each question carries 10 marks.*

Short Essay

6x10=60

3. Explain in detail about Cardiac output and various factors affecting it.

4. Describe NSAID under following headings classification, mechanism of action, indications, contraindications and adverse effects.

5. Discuss in detail about Fracture healing.

6. Discuss the role of Parathormone and Calcitonin on Bone tissue.

7. Explain the role of Cerebellum in maintaining balance and coordination.

8. Discuss the importance of Vit D in Skeletal system and add a note on its applied aspect.

MPT in Sports [1st Year]

BF/2021/10

Review of Basic Therapeutics (MPS102)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTRAY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay.

1x20=20

1. Describe normal posture & its importance in Sports injuries.

OR

2. Explain biomechanics of Swimming

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay.

6x10=60

3. Physiological effects of UVR
4. Describe Ankle Foot Orthosis.
5. Therapeutic effects of Acupuncture and TENS
6. Write pathomechanics of Rotator cuff injury.
7. Write basic principles of Kinesiotaping.
8. PNF patterns for strengthening of Lower extremity muscles

MPT in Sports [1st Year]

BF/2021/10

Advanced Therapeutics and Diagnosis (MPS103)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) *The Student must write O.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

1x20=20

1. Describe Anaerobic Threshold: its concept & role in Endurance Sport, under following headings. [4x5= 20]
(a) Anaerobic Threshold definition
(b) OBLA (Onset of Blood Lactate Accumulation)
(c) Causes of OBLA
(d) OBLA and Endurance Performance

OR

2. Discuss in brief about the concept of Cyriax Mobilization. And differentiate Maitland & Mulligan mobilization techniques of joints & nerves.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay

6x10=60

3. Explain the increased metabolism during exercise & free radical production.
4. Define VO₂max, testing of VO₂max & factors affecting VO₂max.
5. Elaborate the importance of diagnostic ultrasound for Soft tissue injuries in sports medicine.
6. Explain the physiological roles of Cortisol hormone and cortisol response to Exercise.
7. Describe Varicose veins and its pathophysiology, medical & physiotherapy management.
8. **Write briefly about the followings :-** [5x2= 10]
(a) Female Athlete Triad
(b) Athlete's Heart

MPT in Sports [2nd Year]

BF/2021/10

Physical Therapy in Sports Conditions (MPS201)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note : Attempt any one question which carries 20 marks.

Long Essay.

1x20=20

1. Write in detail the importance of the Gait laboratory as a quantitative assessment tool in the injury assessment and prevention and preparation of an athlete.

OR

2. Write the training principles for a Basket ball player in general and specific to sequence of body movements coordinated in a ball throw to ball.

Section-B

Note : All Questions are compulsory. Each question carries 10 marks.

Short Essay.

6x10=60

3. Write in detail the role of Aquatic therapy in sports training, injury prevention and management.
4. Discuss the common injuries in Kabaddi.
5. Write the treatment and rehabilitation protocol for a strained hamstring muscle of a Footballer.
6. Elaborate the criteria and tests for the return to play after rehabilitation following Rotator cuff injury in rowing.
7. Discuss a Flexibility training module for a sports person playing football.
8. Write in detail the diagnostic and therapeutic use of Isokinetic Dynamometer.

MPT in Sports [2nd Year]

BF/2021/10

Athletic Injuries (MPS202)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note : Attempt any one question which carries 20 marks.

Long Essay.

1x20=20

1. Discuss in detail about various Patellofemoral syndrome, its physiotherapy protocol and add a note on its differential diagnosis.

OR

2. Discuss in detail about Thoracic Costo Vertebral Joint disorder's, its physiotherapy protocol and add a note on its differential diagnosis.

Section-B

Note : All Questions are compulsory. Each question carries 10 marks.

Short Essay.

6x10=60

3. **Write notes on :**
(a) Golfer's elbow [5]
(b) Exercise prescription in Epileptic athlete [5]
4. Discuss in detail AC Joint injuries and add a note on differential diagnosis.
5. **Write notes on :**
(a) Viral respiratory infection in athletes [5]
(b) Traveller's diarrhoea [5]
6. Discuss in detail about Recurrent low back pain in athletes, diagnostic criteria and management plan.
7. **Write notes on :**
(a) Sacroilitis [5]
(b) Osteitis Pubis [5]
8. Describe the physiotherapy management of athlete after Grade 1 ACL injury.
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MPT-Sports 2nd Year

BF/2021/10

Applied Exercise Physiology and Sports Psychology (MPS 203)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTRAY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Note: Attempt **THREE** questions from each Section A & B.
First Question in both sections is compulsory.

Section-A (Sports Psychology)

Marks 40

1. Describe the role of sports psychology in prevention of sports injuries and their rehabilitation. [20]
2. Describe different theories of Leadership and their application in sports. [10]
3. Describe the role of Motivation in enhancing sports performance. [10]
4. **Write short notes on the following :**
 - (a) Progressive muscle relaxation [5]
 - (b) Role of heredity in growth and development [5]

Section-B (Applied Exercise Physiology)

Marks 40

5. Describe various effects of aerobic training on Cardiovascular and Pulmonary system. [20]
6. Describe the functional unit of muscle. Describe various methods of resistance training for muscles. [10]
7. Describe various physiological effects of high- altitude training. [10]
8. **Write short notes on the following :**
 - (a) Carbohydrate loading [5]
 - (b) Exercise stress testing [5]

QP Code: MPC101

MPT in Cardio Pulmonary [1st Year]

BF/2021/10

Review of Basic Sciences (MPC 101)

Time: 3 Hours.

Max Marks =80

Note: 1.) *Attempt all questions.*

2.) ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.

3.) NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED

4.) The Student must write O.P. Code in the space provided on the Title page of the Answer Book.

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

1x20=20

1. Define Cardiac cycle. Discuss about the pressure- volume changes during cardiac cycle.

OR

2. What is Pulmonary function test? Discuss volume-time and flow-volume curves in detail.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay.

6x10=60

3. What is Aerobic exercise? Discuss various tools for measuring aerobic exercise intensity.
 4. Discuss Spinal cord in relation to cardio- respiratory functions.
 5. Discuss in detail about the Broncho-dilators.
 6. Write short notes on Immune system.
 7. Discuss in detail about Balanced diet.
 8. Write a short note on ECG.
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QP Code: MPC102

MPT in Cardio Pulmonary [1st Year]

BF/2021/10

Review of Basic Therapeutics (MPC102)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) *The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.*

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

1x20=20

1. Discuss the difference between Thermotherapy & Cryotherapy. Write about physiological effects and principles of application of both with examples.

OR

2. Discuss various types of Soft tissue mobilization techniques used in physiotherapy. Also explain the role of soft tissue mobilization in oedema

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay

6x10=60

3. Discuss various types of pathological postures and methods of correction for each.
4. What is intermittent pneumatic compression therapy. Discuss its principle, application and indications.
5. Define Neuromuscular coordination. Describe the types of PNF and their application in re-education.
6. What is UVR? Discuss its dosage, indication and contraindication.
7. Write short note on following :
- (a) Milwaukee Brace [5]
(b) Taylor's Brace [5]
8. Differentiate between Pectus excavatum & Pectus carinatum. Discuss the role of physiotherapy in correction of Pectus excavatum.
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QP Code: MPC103

MPT in Cardio Pulmonary [1st Year]

BF/2021/10

Advanced Therapeutics and Diagnosis (MPC 103)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) **The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

1x20=20

1. Describe the principle of Mulligan mobilization technique. Describe mobilization of cervical spine and indications.

OR

2. Describe the impact of Burn on respiratory system. Describe types of burn, complications and physiotherapy management.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay

6x10=60

3. Describe manual lymphatic drainage & pneumatic compression therapy in post mastectomy lymphoedema of Upper limb.
 4. Describe the pathophysiology of Pneumothorax & management.
 5. Describe Aerosol therapy and its indications.
 6. Describe a Suction catheter, types and size recommended in a patient with ET tube on mechanical ventilator.
 7. Describe Micro current & its role in wound healing.
 8. Describe Postural drainage in an infant on ventilator for apical and lower lobe.
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MPT in Cardio Pulmonary [2nd Year]

BF/2021/10

Physical Therapy in Cardio Pulmonary Conditions (MPC 201)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) **The Student must write Q.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay.

1x20=20

1. Enlist the Valvular diseases of Heart. Describe the physiotherapy protocol in a patient post mitral valve replacement.

OR

2. Differentiate between Extrinsic and Intrinsic Asthma. Describe the physiotherapy protocol for a patient suffering from intrinsic asthma.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay.

6x10=60

3. Describe the complete pre-assessment format for a patient before undergoing Cardiac surgery.
4. What are Exercise tolerance tests. Discuss any one in detail.
5. How does Rheumatic fever affect the Cardiovascular system? Discuss PT management for the same.
6. Differentiate between Pectus excavatum and Pectus carinatum. Describe PT management of any one in detail.
7. Explain how physiotherapy intervention will help in normalizing blood pressure in a Hypertensive patient.
8. What is Median sternotomy. Discuss its indications and physiotherapy management required to recover from such incision.

MPT in Cardio Pulmonary [2nd Year]

BF/2021/10

Physiotherapy in Cardiopulmonary Surgical Conditions (MPC202)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/ PROVIDED**
4.) **The Student must write O.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

1x20=20

1. What do you mean by Heart Transplant? Mention in details the role of physiotherapist in pre and post-operative stage of a patient with heart transplant.

OR

2. Describe in detail the role of a physiotherapist in Pulmonary rehabilitation?

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay

6x10=60

3. Thoracotomy.
 4. Describe TOF and its post-operative physiotherapeutic management.
 5. Exercise testing protocol on treadmill.
 6. Angioplasty.
 7. Pulmonary response to High intensity exercise.
 8. Aerobic training after Pericardiectomy.
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MPT in Cardio Pulmonary [2nd Year]

BF/2021/10

Physical therapy in Intensive Care Unit Conditions (MPC 203)

Time: 3 Hours.

Max Marks =80

- Note:** 1.) *Attempt all questions.*
2.) **ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.**
3.) **NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/PROVIDED**
4.) **The Student must write O.P. Code in the space provided on the Title page of the Answer Book.**

Section-A

Note: Attempt any one question which carries 20 marks.

Long Essay

1x20=20

1. Describe specific bronchial hygiene therapy techniques, procedures, its rationale, indications, contraindications and hazards.

OR

2. Describe the role of physiotherapist in the management of a patient with ARDS following road traffic accident.

Section-B

Note: All Questions are compulsory. Each question carries 10 marks.

Short Essay

6x10=60

3. Describe Respiratory muscle training and its procedure. Differentiate with incentive spirometry
 4. Describe Mucokinetic agents and drugs.
 5. Describe Hyperbaric oxygen therapy and its role.
 6. Describe the systemic examination of Chest and Lung.
 7. Differentiate between obstructive and restrictive Lung disease.
 8. Describe normal Chest X-ray.
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