

# MPT [1<sup>st</sup> Year]

BF/2021/03

## 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. Distinguish between primary data and secondary data and discuss the various methods of collecting primary data.

**OR**

2. What is research design? Discuss research design in case of exploratory research studies.

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

#### Short Essay

4x10=40

3. Define the following terms:

- (i) Null Hypothesis                      (ii) Alternative Hypothesis                      (iii) Type-II error  
(iv) Level of significance

4. The average milk production per cow was estimated to be 1600kg in one year with standard deviation 209kg. In order to test this, a random sample of 100 cows was taken and that gave mean as 1800kg. Test at 5% level of significance whether sample justify the estimation about the whole herd of cows. (Table value of Z at 5% level of significance = 1.96)

5. Explain the significance of a research report and narrate the various steps involved in writing such a report.

6. Find regression line of expenditure on advertising (X) and sales (Y) from the data given below and estimate the expenditure on advertising when sales (in lakhs) is 65.

Advertising expenses ('000 Rs.):	39	65	62	90	82	75	25
Sales (lakh Rs.):	47	53	58	86	62	68	60

### UNIT II

[20 Marks]

### **QP Code: MPR105**

### **Computer**

1. What is Software? Explain various types of softwares and their usage. [5]

2. How MS- Office is useful? What are the various features of MS-Power Point & MS- Access? [5]

3. What is Internet? How it works? What are applications of internet in medical science & its services. [5]

4. Define Statistical methods? Discuss various statistical methods using suitable examples. [5]

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**QP Code: MPP204**

# **MPT [2<sup>nd</sup> Year]**

BF/2021/03

## **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. Write in detail about various types of curriculum and development of curriculum for Physiotherapy.

**OR**

2. Discuss the educational aims and agencies of education.

### **Section-B**

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

#### **II. Short Essay**

6x10=60

3. Differentiate between Standardized and Non-standardized tools for measurement and evaluation of education.
4. Write in detail about the importance of clinical assignments in Physiotherapy curriculum.
5. Discuss the Teaching and lesson plan writing in detail.
6. Describe in detail about the dynamics of behavior.
7. Write about the process and planning along with design and expansion plan for a Physiotherapy center.
8. Discuss in detail about how the Physiotherapy profession has evolved in India over the years. Also discuss the future scope of Physiotherapy in India.

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# MPT in Orthopedics [1<sup>st</sup> Year]

BF/2021/03

## 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 principles of MMT with its advantages & disadvantages?  
(b) Arthro & osteokinematics?

**OR**

2. (a) Write in detail about PRE & Discuss its different techniques?  
(b) Principles of Relaxed passive movements & its physiological effects?

### Section-B

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

6x10=60

3. Describe in detail about kinetics & kinematics of tibiofemoral joint with its pathomechanics? [10]
  4. Discuss various types of Orthosis used in spine? Explain anyone spinal orthosis in detail? [10]
  5. Define Mobilization? Differentiate sustained translatory glide with graded oscillatory technique? [10]
  6. Define UVR? Discuss the dosage of UVR in Psoriasis? [10]
  7. Define Cerebellar Ataxia? Discuss the role of Frenkelexercise? [10]
  8. Discuss Postural Mechanism & differentiate good and bad posture? [10]
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# **MPT in Orthopaedics [2<sup>nd</sup> Year]**

BF/2021/03

## **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 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. Differentiate between complete and incomplete Spinal cord injuries. Enumerate the different types of incomplete spinal cord injuries in detail.

**OR**

2. Explain Spinal tumors. Write in detail about clinical features, types, differential diagnosis, diagnostic tests and management of Adult spinal hemangioma.

### **Section-B**

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

#### **Short Essay**

[6x10=60]

3. Explain Proper Lifting & Bending techniques for patients with Low back pain due to Prolapsed inter vertebral disc.
4. What are the Absolute and Relative risk factors for Spondylolysis & Spondylolisthesis?
5. Classify the Spinal fractures in detail.
6. Explain the classification of Pelvic injuries & its management.
7. Write in detail Lumbar facet dysfunction and its management.
8. Write in detail about the wheelchair modification you will like to do in a Cervical cord injury patient.
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**QP Code: MPN101**

# **MPT in Neurology [1<sup>st</sup> Year]**

BF/2021/03

## **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 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 role of Cerebellum in maintaining coordination & motor control.

**OR**

2. Discuss in detail about pathophysiology of Parkinson's disease and throw some light on diet for Parkinsonism.

### **Section-B**

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

#### **Short Essay.**

[6x10=60]

3. Discuss briefly about pathophysiology of Cerebral infarction.

4. Write a note on Special senses giving emphasis on physiology of taste.

5. Classification of Muscle relaxants along with their mechanism of action, pharmacokinetics and systemic actions.

6. Describe the mechanism of action of Cholinergic drugs and how does they affect the autonomic nervous system.

7. Discuss briefly about Diabetic neuropathy.

8. **Write briefly about :**

(a) Neurons & Neuroglia

(b) Synapse

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**QP Code: MPN201**

# **MPT in Neurology [2<sup>nd</sup> Year]**

BF/2021/03

## **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 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 about management of a young individual of 45 year having Right sided hemiplegia.

**OR**

2. Discuss in detail about Wheel chair as a modality in physiotherapy.

### **Section-B**

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

#### **Short Essay.**

6x10=60

3. Discuss briefly about differential diagnosis in Monoparesis and treatment guidelines in acute stage?
  4. Assessment of Tone?
  5. Define Balance and write on neurophysiological basis of balance?
  6. Write assessment and in brief management of any one Polyneuropathy?
  7. Write in detail about role of physiotherapy in Spastic Bladder.
  8. Role of physiotherapy in Headache?
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**QP Code: MPN202**

# **MPT in Neurology [2<sup>nd</sup> Year]**

BF/2021/03

## **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 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 assessment and physiotherapy management of patient starting from ICU to neurological ward and to community re-entry phase who has sustained spinal cord injury at T6 spinal segment level (Complete injury).

**OR**

2. Write in detail about the assessment and management strategies of Postural control dysfunction following stroke.

### **Section-B**

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

#### **Short Essay.**

6x10=60

3. Write about causes, clinical features, laboratory findings and management of Bacterial meningitis
  4. Write about assessment and physiotherapy management of a Parkinson's patient who is in stage II in Hoehn and Yahr scale.
  5. Physiotherapy assessment and management of subjects with Beningn brain tumors
  6. Electrotherapy modalities used in pressure sore.
  7. Causes, clinical features and management of various grades of Radial nerve injury.
  8. Body weight supported gait training.
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**QP Code: MPN203**

# **MPT in Neurology [2<sup>nd</sup> Year]**

BF/2021/03

## **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 any 5 sequences of developmental direction in Children with appropriate examples.

**OR**

2. Write about the assessment of movement and posture with appropriate intervention strategies to improve balance in Cerebral palsy.

### **Section-B**

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

#### **Short Essay.**

6x10=60

3. Exercise prescription parameters for a 5 year old child with post polio residual paralysis. All the lower limb muscles have a 3/5 score on a MMT grading on the affected side.

4. Orthotics used in children with Duchenne muscular dystrophy.

5. Management strategies for Bladder dysfunction in children with Myelodysplasia.

6. Signs of Prematurity in new born children.

7. Reflex theory of Motor control.

8. Physiotherapy management of a 5 year child with Viral meningitis.

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