

End Semester Examination, Dec. 2019

Bachelor of Physiotherapy–Third Semester

EXERCISE THERAPY-II (PT-304)

Time: 3 hrs.

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**. Marks are indicated against each question.

PART-A

- | | | |
|-----|---|-----------|
| Q.1 | Explain types of crutch walking along its indications. | 10 |
| Q.2 | Explain gait cycle and various determinants of gait. | 10 |
| Q.3 | Explain Jacobson's progressive relaxation technique. | 10 |
| Q.4 | Explain kyphosis lordosis posture and its management in detail. | 10 |

PART-B

- | | | |
|------|---|----------|
| Q.5 | Explain patterns of PNF. | 5 |
| Q.6 | Explain various bed rest complications. | 5 |
| Q.7 | Explain hold relax. | 5 |
| Q.8 | Explain various types of suspension. | 5 |
| Q.9 | Explain D1 Flexion pattern upper limb. | 5 |
| Q.10 | Explain various mat exercises | 5 |
| Q.11 | Explain various breathing exercises. | 5 |
| Q.12 | Explain step length and stride length in brief. | 5 |

End Semester Examination, Dec. 2019

Bachelor of Physiotherapy – Seventh Semester

HEALTH MANAGEMENT (PT-003)

Time: 3 Hours

Max Marks: **50**

No. of pages: 1

Note: Attempt any **FIVE** questions in all. **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and any **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following:

- a) Define 'vocational health'.
- b) What is the importance of proteins in balanced diet?
- c) Name any three drugs used for substance abuse.
- d) Modes of prevention of Tuberculosis.
- e) Define 'sway back posture'.

2x5

PART-A

Q.2 **What is health education? What are various dimensions of health? Explain in detail about the objectives of health education.** **10**

Q.3 **What are the components of balanced diet? Explain the importance and components of post session diet for sports persons.** **10**

Q.4 **Explain tobacco abuse in detail. Elaborate the effects and incidence of substance abuse in childhood.** **10**

PART-B

Q.5 **What is the importance of first aid in sports injury? Classify and explain the first aid for soft tissue injuries in sports.** **10**

Q.6 **What is Hepatitis? Explain the mode of transmission and methods of prevention for hepatitis in detail.** **10**

Q.7 **What are the drawbacks of knock knees? Discuss in detail about the causative factors and remedial exercises for genu valgum.** **10**

End Semester Examination, Dec. 2019

Bachelor of Physiotherapy – Fifth Semester

MARKETING MANAGEMENT (PT-002)

Time: 2 hrs.

Max Marks: **50**

No. of pages: *1*

Note: *Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.*

- Q.1 Write in briefly about following
- a) Define job satisfaction.
 - b) Direction in planning.
 - c) Quality assurance.
 - d) Importance of marketing for physiotherapy department.
 - e) International audit system.
- 2×5**

PART-A

- Q.2 What is management? What are the functions and types of management? **10**
- Q.3 What are the types of recruitment? Create the process of interview for physiotherapist. **10**
- Q.4 What is distribution? Discuss the channels of distribution in detail. **10**

PART-B

- Q.5 What is the basis of quality control? Illustrate the ways of quality control for hospitals. **10**
- Q.6 What is importance of planning in management? Describe its types in detail. **10**
- Q.7 Discuss the importance of market research for physiotherapy in detail. **10**

End Semester Examination, Dec. 2019
Master of Physiotherapy – Third Semester
CURRENT CONCEPTS AND SCIENTIFIC RATIONALE IN SPORTS
(MPTS-302)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: *Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.*

Q.1 Answer the following questions:

- a) Explain T.A.R.T for muscle dysfunction.
- b) Explain the circulation of cerebrospinal fluid pathways.
- c) Write the principles of MET.
- d) Explain "Capsular stretching".
- e) Who discovered pilates and when?
- f) Write the principles of K-Taping.
- g) ULTT-2 is for which nerve?
- h) Describe stress response of postural and phasic muscles.
- i) Describe "Sphenoid lift".
- j) Write in brief about sacral release.

2×10

PART-A

Q.2 Write the patterns of dysfunction in upper crossed syndrome. Explain the Muscle energy technique to assess and treat the dysfunction. **20**

Q.3 Explain in detail about the cyriax principle of diagnosis and treatment. Write in detail for tendinitis of ECRB tendon. **20**

Q.4 Explain "Multi-activity training". What are the beneficial effects of the same? **20**

PART-B

Q.5 Explain in detail about the principles of neural-mobilization given by Butler. **20**

Q.6 Write down the indications and contraindications of cranio sacral therapy. Explain its principles. **20**

Q.7 a) Discuss the principles of pilates training in detail. **10**
b) Explain "Roll down exercise". **10**

End Semester Examination, Dec. 2019
Master of Physiotherapy – Third Semester
EVALUATION, DIAGNOSIS AND MANAGEMENT IN SPORTS-II
(MPTS-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 Answer the following questions:
- a) Explain the role of Rising-temperature baths.
 - b) Write the advantages of contrast bath.
 - c) Enumerate the contraindications of sports massage.
 - d) Explain the weight training method.
 - e) Define the term "Ergo genic aid".
 - f) Explain the use of effleurage technique.
 - g) Enumerate the common injuries in cyclist.
 - h) Write the common non-contact sport injuries.
 - i) Enumerate the protective equipment used in football.
 - j) Explain the FITT principle.

2×10

PART-A

- Q.2 Write the common injuries occurring in the football game. Explain in detail the rehabilitation protocols for ACL injury of knee. **20**
- Q.3 Discuss the principles of protective equipments. Write the importance of custom made protective equipment. Enumerate the different type of helmets used in different games. **20**
- Q.4 Discuss the physiological effects and contraindications of massage. Write the benefits of sports massage. Explain any one special sports massage techniques. **20**

PART-B

- Q.5 a) Explain about the use of whirlpool bath in rehabilitative process. **10**
b) Discuss the role of sauna bath in sports person relaxation. **10**
- Q.6 Enumerate the principles of training. Discuss the importance and advantages of per-iodization. **20**
- Q.7 Classify "Dope agents". Explain the role of growth hormone as doping agent. Write a note on therapeutic use of banned drugs. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy (Sports) – Second Semester
SPORTS PSYCHOLOGY (MPTS-204)

Time: 3 hrs.

Max Marks: **50**

No. of pages: *1*

Note: *Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **ONE** questions from **PART-A** and **ONE** questions from **PART-B**. Marks are indicated against each question.*

- Q.1 Write short notes on:
- a) Define attention.
 - b) Name four assessment tools of personality.
 - c) Name social attributes to injury.
 - d) Benefits of goal setting
 - e) Stress occlusion training.

2x5

PART-A

- Q.2 Explain the importance of Psychology for physiotherapist in sports. **20**
- Q.3 Define Motivation. Explain the motivation inhibitors. How will you train an athlete to stay motivated on field? **20**

PART-B

- Q.4 What is PCA? Explain free sources of PCA. Make plain of relaxation training for an athlete. **20**
- Q.5 Enumerate the strategies of a good leader. How can we train an individual to be a good leader? **20**

End Semester Examination, Dec. 2019

Master of Physiotherapy – Second Semester PHYSIOTHERAPEUTICS-II (MPTS-203)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Marks are indicated against each question.

Q.1 Describe the following in brief:

- a) Isokinetic dynamometry.
- b) Any two effects of taping.
- c) Centralization phenomenon.
- d) Advantages of active wheelchairs.
- e) Concavo-convex rule.
- f) Contraindications of mobilizations.
- g) Physiological laws of spinal motion.
- h) Eight stages of yoga.
- i) Therapeutic planes according to Kaltenborn.
- j) Regular and irregular patterns.

2x10

PART-A

Q.2 Enumerate the principles of taping. List out advantages of using K-tape describing its properties. Demonstrate the procedure for patellar tendonitis. **20**

Q.3 Describe in detail the McKenzie Mobilisation and explain extension exercise protocol for derangement with diagrams. **20**

Q.4 Explain the various methods used for body composition analysis. Which is the gold standard method of assessment? Enlist the importance of using these methods in rehabilitation. **20**

PART-B

Q.5 Describe the therapeutic usage of yoga listing out its benefits. Explain in detail the process of pranayama. **20**

Q.6 Outline the basic wheelchair skills in rehabilitation. Describe with suitable examples. **20**

Q.7 Briefly explain the role of isokinetic dynamometry, force platform and EMG analysis in sports rehabilitation. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy – Second Semester
EVALUATION DIAGNOSIS AND MANAGEMENT IN SPORTS-I
(MPTS-202)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part A** and **TWO** questions from **Part-B**. Marks are indicated against each question.

Q.1 **Write short notes on the following:**

- a) Valgus test
- b) PRICE protocol
- c) Dequerian's test
- d) Thomas Test
- e) Jersey Finger

4x5

PART-A

Q.2 Discuss the various factors responsible for Sports Injuries.

20

Q.3 A 20 year old baseball pitcher is suffering from shoulder pain since 3 weeks. Write down the full assessment for him including the management. (training since- 2 years, no history of previous injury, no acute injury).

20

Q.4 Discuss the Following:

- a) Piriformis Syndrome
- b) Osteitis Pubis

10x2

PART-B

Q.5 a) Female Athlete Triad.
b) Game Keepers Thumb

10x2

Q.6 Enumerate the common injuries seen in Young athletes. And write a note on little leaguers Elbow.

20

Q.7 What do you understand by heat injuries. Classify them according to the symptoms. **20**

End Semester Examination, Dec. 2019

Master of Physiotherapy — Third Semester

CURRENT CONCEPT AND SCIENTIFIC RATIONALE IN NEUROLOGICAL PHYSIOTHERAPY (MPTN-302)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1
- Explain Pilates.
 - Differentiate between tender point and trigger point.
 - Describe segmental stabilization.
 - Who developed Cyriax technique and when?
 - Describe still point induction.
 - Define 'virtual reality'.
 - Brief out the circulation of cerebrospinal fluid pathways.
 - Explain Myofascial pain syndrome.
 - ULTT4 is for which nerve.
 - Define 'behavioral therapy'.
- 2x10**

PART-A

- Q.2 Design the management strategies for stress disorder. **20**
- Q.3 Describe capsular stretching. Explain the cyriax principles of diagnosis and principles of treatment. **20**
- Q.4 Write down about the concept and principle of lumosity. **20**

PART-B

- Q.5 Devise Pilates exercise program for a 35 year old female with a history of mechanical backache since six months. **20**
- Q.6 Explain the concept and principles of neural mobilization as given by Butler. **20**
- Q.7 Discuss the principles, indications and contraindications of CST. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy — Third Semester
CURRENT CONCEPT AND SCIENTIFIC RATIONALE IN NEUROLOGY
(MPTN-302)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following questions:

- a) Explain T.A.R.T for muscle dysfunction.
- b) Who discovered pilates and when?
- c) Write the indications and contraindications of PRT.
- d) ULTT-2 is for which nerve?
- e) Write principles of MET.
- f) Describe "Strain-Counter strain technique".
- g) Describe "Sphenoid lift".
- h) Explain "Capsular stretching".
- i) Write in brief about sacral release.
- j) Describe stress response of postural and phasic muscles. **2×10**

PART-A

Q.2 Write the patterns of dysfunction in upper crossed syndrome. Explain the muscle energy technique to assess and treat the dysfunction. **20**

Q.3 Explain in detail about the Cyriax principle of diagnosis and treatment. Write in detail for bicipital tendinitis. **20**

Q.4 What are the principles of PRT? Write all the hypothesis of positional release technique. **20**

PART-B

Q.5 a) Discuss the principles of pilates-training in detail. **10**
b) Explain "Roll down exercise". **10**

Q.6 a) Explain in detail about the principle of CST. **10**
b) Write down the indications and contraindications of CST. **10**

Q.7 Explain in detail about the principles of neural-mobilization given by Butler. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy — Third Semester
EVALUATION, DIAGNOSIS AND MANAGEMENT IN NEUROLOGY-II
(MPTN-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: *Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.*

Q.1 Answer the following questions:

- a) Give the clinical features of reflex sympathetic dystrophy.
- b) Give the classification of spina bifida.
- c) Give the clinical features of BPPV.
- d) What are stereotactic surgeries?
- e) What is Uhthoff phenomenon?
- f) Precautions to be taken while prescribing exercises to a multiple sclerosis patient.
- g) Give the clinical features of transverse myelitis.
- h) Give the management of carpal tunnel syndrome.
- i) Differentiate between complete and incomplete spinal cord injury.
- j) Differentiate between "Spasticity and Rigidity".

2×10

PART-A

Q.2 Discuss the etiological factors, clinical features and investigations for cerebellar disorders. Throw light on the primary and secondary impairments, In the light of Evidence based practice; discuss functional approaches for its treatment. **20**

Q.3 A 7 year old girl has scissoring gait and exhibits difficulty in doing activities of daily living. The symptoms are worse in upper limb as compared to lower limbs. Mother gives the history of delayed birth cry with milestone delay. Write down the detailed assessment and management of the case. **20**

Q.4 Describe the patho-physiology of Myasthenia Gravis. Design individualized goals and treatment plan for the patient having hospitalized and diagnosed with Myasthenia Gravis. **20**

PART-B

Q.5 A 12 year old boy has a history of high grade fever with respiratory involvement. Now he complains of lack of strength in lower limbs and exhibits hand to knee gait and difficulty in doing stair climbing. However sensation in the lower limb is preserved. Write down the detailed assessment and management of the case. **20**

Q.6 A 65 year old male complains of falls. Write the functional assessment of the elderly. Add a note on the conservative pain management of the older patient. **20**

Q.7 Explain the indications for surgery to be undertaken for reduction of spasticity. Explain the acute respiratory care in ICU. Also discuss the prognostic outcome and physiotherapy management of secondary impairments. **20**

End Semester Examination, Dec. 2019

Master of Physiotherapy – Second Semester PHYSIOTHERAPEUTICS-II (MPTN-203)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Marks are indicated against each question.

Q.1 Answer briefly the following questions:

- a) Recovery of function after Brain damage.
- b) Facilitatory techniques for Spasticity reduction.
- c) Principle of Music therapy.
- d) Define Learned Non Use.
- e) Principle of Rood's approach.
- f) Write down the differences between active and passive wheelchairs.
- g) Explain eight stages of yoga.
- h) What do you understand by Kinanthropometry?
- i) What are the advantages of active wheelchair in Rehabilitation?
- j) What are the physiological benefits of Yoga?

2×10

PART-A

- Q.2
- a) Explain the Physiology, Principles and Applications of Neuroplasticity in the recovery of Motor Function. **10**
 - b) Write the assumptions of Sensory Integration for treatment of sensory processing disorder in Children. **5**
 - c) Explain the principle and steps of MRP. Briefly explain the augmented feedback. **5**
- Q.3
- a) Explain the principles and techniques of Rood's approach for retraining upper limb function in a spastic stroke patient. **10**
 - b) Explain the various inhibitory and facilitation techniques used for retraining of motor function in acute stroke patient. **10**
- Q.4
- a) What do you understand by PNF? Explain the Treatment Design in the light of evidence for clinical application of various principles of Proprioceptive Neuromuscular Facilitation in treating circumductory gait. **15**
 - b) Critically analyse the usage of Mental Imagery Technique in rehabilitation. **5**

PART-B

- Q.5
- a) Explain in detail the basic wheelchair skills used in rehabilitation. **15**
 - b) Explain the usage of wheelchair for recreational activities. **5**
- Q.6
- a) What are various Yogic practices? Briefly discuss the application and benefits of yogic postures. **10**
 - b) What is pranayama? Discuss the benefits of pranayamas on various systems of body. **10**

- Q.7 a) Explain Body composition analysis? Write in detail about its importance and its uses in rehabilitation. **10**
- b) Write a short note on application of Isokinetic dynamometry in Rehabilitation. **10**

End Semester Examination, Dec. 2019
Master of Physiotherapy – Second Semester
EVALUATION DIAGNOSIS AND MANAGEMENT IN NEUROLOGY
(MPTN-202)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: *Attempt **FIVE** questions in all; **Q.1** is compulsory. Attempt any **TWO** questions from **Part A** and **TWO** questions from **Part-B**. Marks are indicated against each question.*

- Q.1 a) Define posture and various tools to assess it.
b) Define H- reflex.
c) Discuss the steps for measuring limb length.
d) Discuss the importance of environmental assessment in any rehabilitation protocol.
e) Define neuroergonomics and discuss its importance.
f) Define developmental mile stone. What is its significance?
g) Differentiate between disability, handicap and impairment.
h) Define IADL.
i) Enumerate the principle of use of orthosis.
j) Discuss types of head injury.

2x10

PART-A

- Q.2 Discuss in detail all the components of the neurological examination. **20**
- Q.3 Define CVA. Discuss in detail about the assessment and management following the stroke. **20**
- Q.4 Discuss the importance of vocational rehabilitation. Discuss the role of environmental modification in rehabilitation of an individual. **20**

PART-B

- Q.5 Discuss the principle of application, indication, contraindication and interpretation of NCV **20**
- Q.6 Define assistive devices. Discuss in detail the prescription, assessment, indication and contraindication of the same. **20**
- Q.7 Discuss the etiology and clinical feature of meningitis. Explain in detail about the acute management of the same. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy (Musculoskeletal) Third Semester
CURRENT CONCEPT AND SCIENTIFIC RATIONALE IN SPECIALTY
(MPTM/S-302)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

*Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.*

Q.1 Answer the following:

- a) Write TART method of diagnosing triggers point.
- b) Define 'counter strain technique'.
- c) Explain Capsular stretching of joints.
- d) What is Well leg raising test?
- e) Write about importance of segmental stabilization.
- f) Describe Isolytic MET.
- g) Explain Parietal Lift.
- h) Explain ULTT-3.
- i) Define 'combined movement therapy'.
- j) Write physiological aspect of Yoga.

2x10

PART-A

Q.2 Discuss the principles of PRT. Write all the hypothesis of positional release technique. **20**

Q.3 Write the patterns of dysfunction in Upper crossed syndrome. Explain the Muscle energy technique to assess and treat the dysfunction. **20**

Q.4 Summarise the concept of Cyriax principle of diagnosis and treatment. Write in detail for ECRB tendinitis. **20**

PART-B

Q.5 What are the principles of Neural mobilization as given by Butler? Write in detail for radiculopathy patients. **20**

Q.6 Explain integrated neuromuscular inhibition technique. What are the beneficial effects of the same? **20**

Q.7 Explain the types of Pilates training. Write in detail for table top positioning of Knee drop exercises. **20**

End Semester Examination, Dec. 2019

Master of Physiotherapy - First Semester

RESEARCH METHODOLOGY AND BIostatISTICS (MPTM/N/S-DS-102)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

- Q.1
- Define 'research designs'.
 - What are the methods of collecting qualitative data?
 - Explain primary and secondary data.
 - What are methods of data representation?
 - Define 'median'.
 - Define 'positive co-relation'.
 - Define 'open and closed questionnaire'.
 - Define confounding variables.
 - What is the difference between samples and population?
 - Mention two measures of variability in distribution.

2x10

PART-A

- Q.2 Compare and contrast between qualitative and quantitative study designs. Examine their advantages and disadvantages in detail. **20**

- Q.3 Describe the various factors which threaten the internal validity of a research study. **20**

- Q.4 Calculate mean, median and mode of the following data:

Marks Range	No. of Students
0-5	7
5-10	10
10-15	16
15-20	30
20-25	24
25-30	17
30-35	10
35-40	5
40-45	1

Also decide on the type of distribution.

20

PART-B

- Q.5 Design a research proposal for your study on a topic of your choice. **20**

- Q.6 Describe the characteristics of a hypothesis. Classify different types of hypothesis. Justify the significance of a *p-value*. **20**

- Q.7 Summarize the various ethical principles to be followed in clinical research. Describe informed consent in detail. Also explain such situations where informed consent cannot be obtained and suggest remedial measures for it. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy - First Semester
PHYSIOTHERAPEUTICS - I (MPTM/N/S/C-DS-104)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part A** and **TWO** questions from **Part-B**. Each question carries equal marks.

Q.1 Explain briefly about the following:

- a) What is chronaxie?
- b) Define periodization.
- c) Define grades of MMT according to Kendall.
- d) What should be the frequency of cyclic stretch?
- e) What is reciprocal inhibition?
- f) Define open and closed chain kinetic exercises.
- g) What are the biomechanical changes in forward head posture?
- h) What are the indications of resistive breathing exercises?
- i) What is kinesthetic sensation?
- j) Describe DAPRE technique.

2x10

PART-A

Q.2 Create a management protocol using MET and MWM for a patient reporting with neck pain. **20**

Q.3 Explain in detail about the application of proprioceptive neuromuscular facilitation for a patient with impaired functional mobility. **20**

Q.4 Describe and create management protocol for a patient having sway back posture. **20**

PART-B

Q.5 What are the various theories of pain? Describe a detailed assessment of pain. **20**

Q.6 What is muscle tension? Describe the techniques of general relaxation focusing on the use of breathing exercises. **20**

Q.7 What is LASER? Write in details about production of LASER and its method of application in detail. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy – First Semester
KINESIOLOGY AND BIOMECHANICS (MPT-M/N/S/C-DS-103)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

- Q.1 Write short notes on:
- a) Arthrokinematics.
 - b) Newton's Second Law.
 - c) Lever.
 - d) Concave-Convex Rule.
 - e) Coxa Vara.
 - f) Anatomical Pulley.
 - g) FSU.
 - h) Phase of Double Support.
 - i) Four Ligaments of Spine.
 - j) Two Structures passing through Sub-Acromial Space. **2x10**

PART-A

- Q.2 Define Equilibrium. Give its classification. Discuss the factors affecting Equilibrium. **20**
- Q.3 Explain the Biomechanical Properties of Skeletal Muscles. Differentiate the Skeletal Muscles according to the arrangements of Fibres. **20**
- Q.4 Draw a well labeled diagram of Synovial Joint. Give the functional classification of Joints. **20**

PART-B

- Q.5 Define Ergonomics. Discuss the importance of Ergonomics to prevent the WRMSD's. **20**
- Q.6 Discuss the Determinants of GAIT with diagrams. **20**
- Q.7 Explain the importance of Biomechanics in Sports.. **20**

End Semester Examination, Dec. 2019

Master of Physiotherapy – Second Semester

EXERCISE PHYSIOLOGY (MPTM/N/S-201)

Time: 3 hrs.

Max Marks: **100**

No. of pages: *1*

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Marks are indicated against each question.

- Q.1
- Explain ATHLETE Heart.
 - What is OBLA?
 - Enumerate and explain HAPE.
 - Elaborate effect of endurance exercise on cardiac output.
 - Explain immediate energy system.
 - Briefly explain role of aldosterone hormone.
 - Define type of Muscle fibres.
 - Explain oxidative phosphorylation.
 - What is Pregame Meal?
 - Explain in detail Acclimatization.

2x10

PART-A

- Q.2 Elaborate the effect of different forms of exercises on functional capacities of heart. **20**
- Q.3 Explain in detail Sliding Filament theory. Briefly explain neuromuscular adaptation to aerobic and strength training. **20**
- Q.4 Explain acclimatization to cold and hot environment also discuss in detail altitude related medical problem. **20**

PART-B

- Q.5 Role of Endocrine function in anaerobic exercises also briefly explain effect of Detraining and overtraining on athlete performance. **20**
- Q.6 Explain immediate, short and long energy system. Explain the energy expenditure during various activities. **20**
- Q.7 Explain Carbohydrate loading in detail Also briefly explain the importance of carbohydrate before during and after the exercise. **20**

End Semester Examination, Dec. 2019

Master of Physiotherapy – First Semester

RESEARCH METHODOLOGY AND BIOSTATISTICS (MPTM/MPTN/MPTS-102)

Time: 2 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following questions:

- Define the measures of central tendency.
- When are the Parametric and non-parametric tests used?
- Differentiate between type I and II errors.
- Define "Hypothesis".
- Enlist the sources of primary and secondary data.
- Define "Plagiarism."
- Highlight the difference between incidence and prevalence.
- Draw a skewed (positive & negative) normal distribution curve.
- Give types of reliability with examples.
- Define "Face validity".

2×10

PART-A

Q.2 Discuss the different types of correlation. Calculate and comment on the type of correlation for the following data:

20

Q.3 What do you mean by a research design? Differentiate between different research designs and explain them with examples. **20**

Q.4 Discuss the different ethical principles in research in detail. **20**

PART-B

Q.5 The marks obtained by a group of 10 students in graduation and MBA entrance test were found as under.

Graduation: 50, 52, 55, 60, 62, 65, 65, 66, 70, 75

Entrance Test: 52, 50, 57, 65, 65, 62, 65, 65, 71, 78

Find the regression equations from these data.

20

- Explain different types of distributions with examples.
- Describe the statistical tests used when the data is normally distributed.
- Mention how errors occur in data?
- Describe theft of Intellectual Property.

5×4

Q.7 A certain drug is claimed to be effective in curing cold. In an experiment on 500 patients with cold, half, of them were given the drug and half of them were given the sugar pills. The patients reactions are recorded in the following table:

	Helped	Harmed	No effect	Total
Drug	150	30	70	250
Sugar Pills	130	40	80	250
Total.	280	70	150	500

On the basis of the data can it be concluded that there is significant difference in the effect of the drug and sugar pills.

$$(\nu = 2, \psi^2 0.05 = 5.99)$$

End Semester Examination, Dec. 2019

Master of Physiotherapy – First Semester

RESEARCH METHODOLOGY AND BIOSTATISTICS (MPTM/MPTN/MPTS-102)

Time: 2 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Answer the following questions:

- Briefly explain different scales of measurement.
- Write the difference between parametric and non-parametric test.
- Write the difference between Correlation and Regression.
- Discuss in brief types of errors.
- What is hypothesis? Give its types.
- Describe types of data.
- Define plagiarism.
- Define biostatistics.
- Draw normal distribution curve.
- List different types of distributions.

2×10

PART-A

Q.2 Discuss the different type of correlation. Calculate and comment on the type of correlation for the following data:

20

Q.3 Differentiate between qualitative and quantitative research design? Describe their types with examples and discuss their advantages and disadvantages.

20

Q.4 Describe the various ethical principles and guidelines for a clinical research.

20

PART-B

Q.5 What do you understand by measures of dispersion? Calculate 'standard deviation' in the following data:

	60	55	45	50	40	35	30	20
		3	5	0	0	3	3	4

20

Q.6 Define "sampling". Classify and explain different types of samplings.

20

Q.7 An analysis of monthly wages paid to the workers in a firm A and B belonging to same industry gives following result:

	m A	m B
Workers	50	50
monthly wages	1450	1400
Deviation	00	40

- Which firm A or B has larger wage bill?
- In which A or B is there greater variability in individual wages?

5

15

End Semester Examination, Dec. 2019

Master of Physiotherapy – Third Semester

EVALUATION, DIAGNOSIS AND MANAGEMENT IN MUSCLED SKELETAL-II (MPTM-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Write short notes on following:

- a) Galleazi's Fracture.
- b) VIC.
- c) Laminectomy.
- d) Triple Arthrodesis.
- e) Measurement of axillary crutch.
- f) Illiazarov's technique.
- g) Spinal fusion.
- h) Classification of OA.
- i) TUG.
- j) List various assistive devices for Back Pain.

2x10

PART-A

- Q.2 a) Classify fractures.
b) Explain healing of fracture and factors affecting it.

10x2

- Q.3 a) Classify Fracture neck of femur according to Pauwel's Classification. **5**
b) Explain its complications. **5**
c) Create plan of treatment after joint replacement due to fracture neck of femur. **10**

- Q.4 Explain about the Components of Physical disability. How can you calculate permanent disability for a person suffering from above elbow amputation? **20**

PART-B

- Q.5 Write about the pre-requisites of tendon transfers. Outline the post-operative assessment and rehabilitation for the same. **20**

- Q.6 Summarize the physiological changes in elderly. **20**

- Q.7 Design walking aid/wheelchair for a paraplegic patient with injury at T-10 level. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy - Second Semester
APPLIED PSYCHOLOGY (MPTM-204/MPTN-204)

Time: 2 hrs.

Max Marks: **50**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

Q.1 Attempt the following:

- a) Define 'Attention'.
- b) Name the types of conduct disorders.
- c) Define 'Wellness'
- d) Define 'Phobia'.
- e) Name the types of Attention?

2×5

PART-A

Q.2 What is cognitive psychology? Write about its three main divisions and the impact of the decline of behaviorism on cognitive psychology in detail. **10**

Q.3 Discuss the features and management of ADHD. **10**

Q.4 What is perception? Discuss the types of deficits in perception. **10**

PART-B

Q.5 a) Discuss Gestalt Psychology in detail. **5**

b) Discuss the approach to perception given by Wilhelm Wundt. **5**

Q.6 Define 'Memory'. Discuss the models and stages of memory in detail. **10**

Q.7 Define Wellness in Rehabilitation. What are the different psychological adaptation models? **10**

End Semester Examination, Dec. 2019

Master of Physiotherapy – Second Semester PHYSIOTHERAPEUTICS-II (MPTM-203)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Marks are indicated against each question.

Q.1 Answer the following:

- a) Draw a movement diagram of patient having pain at right scapular region. This pain aggravated by doing flexion of cervical spine and simultaneously side flexion to left side.
- b) Self correction of lumbar list at L4 level.
- c) Differentiate between coupled movement and combined movements.
- d) Define 'slalom technique'.
- e) Define 'headache SNAG'.
- f) Define 'pranayama'.
- g) List parameters of isokinetic exercising.
- h) Function of caster wheels.
- i) Types of dysfunction.
- j) What are the types of dysfunctions according to McKenzie? **2x10**

PART-A

Q.2 Explain grades of Kaltenborn mobilization. Design a protocol for a musculoskeletal problem of your choice highlighting its therapeutic uses. **20**

Q.3 Write in detail about the principles of Mulligan Mobilization therapy. Apply this for segmental traction for cervical spine. **20**

Q.4 Outline the taping technique for scapular dyskinesia. Analyse the principle behind this. **20**

PART-B

Q.5 a) Discuss the different types of wheelchair with their advantages and disadvantages.
b) Differentiate between short and long transfer. **10x2**

Q.6 Write about the history of Yoga and its therapeutic benefits. Explain Pranayama in detail. **20**

Q.7 Explain Isokinetic Dynamometry. How is it different from other assessment techniques? **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy – Second Semester
EVALUATION AND DIAGNOSIS AND
MANAGEMENT MUSCULOSKELETAL – I (MPTM-202)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Marks are indicated against each question.

- Q.1 Explain briefly:
- a) Clinical features of rickets.
 - b) Muscles involved in crutch palsy.
 - c) Define 'osteomyelitis'.
 - d) What is the use of photogrammetry?
 - e) Describe the rule of 9.
 - f) What is golfer's elbow?
 - g) Diagnostic tests for Psoriatic Arthritis.
 - h) Evaluation for DQ disease.
 - i) Syme's Amputation.
 - j) What is the difference between contusion and muscle rupture? **2x10**

PART-A

- Q.2 Describe in details about the qualitative and quantitative analysis of gait. Discuss the use of photogrammetry for the analysis of posture. **20**
- Q.3 Discuss the classification of osteoarthritis according to the radiographic findings. Describe the detailed rehabilitation protocol for a 60yr old patient suffering from hip OA. **20**
- Q.4 Define ankylosing spondylitis. What is the Differential diagnosis and clinical presentation of AS? Discuss the role of physiotherapy management for the same. **20**

PART-B

- Q.5 Discuss the importance of following in physiotherapy:
- a) DEXA Scan.
 - b) Bone Densitometry.
 - c) MRI.
 - d) CT Scan. **20**
- Q.6 Write in details about the post amputation prosthetic assessment and Stump care of above knee amputation. **20**
- Q.7 Describe causes, assessment, clinical presentation and physiotherapy management of Erb's Palsy. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy – First Semester
KINESIOLOGY AND BIOMECHANICS (MPT-M/N/S-103)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

Q.1 Write short notes on the following:

- a) Newton's Second Law.
- b) Carrying Angle.
- c) Name any four ligaments of HIP joint.
- d) Q angle.
- e) Torque.
- f) Differentiate between kinetics and kinematics.
- g) Phase of Double support.
- h) Define 'Scoliosis'.
- i) Functions of Meniscus.
- j) Concave convex rule.

2x10

PART-A

- Q.2 a) Define Biomechanics. Write down the importance in the field of Physiotherapy. **10**
b) Define equilibrium. Give its classification and factors affecting it in detail. **10**
- Q.3 Define 'Lever'. Write down its classification with examples from Human Body. Discuss the mechanical advantage of each of them. **20**
- Q.4 Discuss 'Lever'. Write down its classification with examples from human body. Discuss the mechanical advantage of each of them. **20**

PART-B

- Q.5 Discuss the various WRMSD's faced by a computer operator. What will be the signs and Symptoms and precautions for carpal tunnel syndrome? **20**
- Q.6 Define Stride. Discuss the determinants of GAIT. **20**
- Q.7 Discuss the biomechanics of Running. Write down the difference between running and walking. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy (M/N/S) - First Semester
APPLIED BASIC MEDICAL SCIENCES (MPT-M/N/S-DS-101)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

- Q.1
- a) Define renal osteodystrophy.
 - b) Name the muscles of back of neck.
 - c) Name the muscles supplied by radial nerve.
 - d) What are topically acting drugs.
 - e) Define anastomosis, give any one example.
 - f) What are the boundaries of cubital fossa?
 - g) Define amyloidosis.
 - h) What is Wallerian Degeneration?
 - i) Describe length tension relationship.
 - j) Explain the use of disease modifying drugs. **2x10**

PART-A

- Q.2 What is nerve fiber? Draw a diagram of the nerve tissue. What are the types of nerve fibers? **20**
- Q.3 What are the boundaries and contents of popliteal fossa? Explain the applied anatomy for the same. **20**
- Q.4 What is Erb's palsy? Create a management protocol for Erb's palsy. **20**

PART-B

- Q.5 Describe the structure of skeletal muscle in details. What are the changes in muscle structure after strength training? **20**
- Q.6 Describe the pathology of acute hematogenous osteomyelitis. Explain the management of the same. **20**
- Q.7 What are the common examples of NSAIDs? Explain the pharmacodynamics and pharmacokinetics of NSAIDs. **20**

End Semester Examination, Dec. 2019

Master of Physiotherapy – Third Semester

WOMEN HEALTH (MPT-M/N/S-303)

Time: 2hrs

Max Marks: **50**

No. of pages: *1*

Note: *Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **ONE** questions from **Part-A** and **ONE** questions from **Part-B**. Each question carries equal marks.*

- Q.1
- Define 'postpartum depression'.
 - Discuss the clinical features of CA cervix. Enumerate the screening methods for it.
 - List down the sexual disorders in female. Also tell the importance of sex education in a middle aged female.
 - Explain the importance of health education in female.
 - Enumerate the clinical features of PCODs. **2x5**

PART-A

- Q.2 Explain the health hazards women face at work place. Discuss the importance of education and remedies in order to avoid the work related disorders. **20**
- Q.3 Describe breast cancer. Enumerate its clinical feature and its grading system. Write down in detailed post-operative management following total radical mastectomy. **20**

PART-B

- Q.4 Justify the importance of educating an elderly female. Discuss the various fall prevention strategies. **20**
- Q.5 Define 'urinary incontinence'. Explain in detail the physical therapy management for the same. Also discuss the role of biofeedback for the same. **20**

End Semester Examination, Dec. 2019
Master of Physiotherapy– First Semester
BUSINESS DEVELOPMENT IN HEALTH CARE (MPT-001)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 Answer the following questions:
- a) What is the importance of e-Health?
 - b) What is Quality Assurance in Healthcare?
 - c) Define Safety Net Services.
 - d) What is importance of healthcare cost?
 - e) Discuss the US Healthcare system in their way of research. **2×5**

PART-A

- Q.2 Discuss the various workforce acting at different levels of Healthcare. **10**
- Q.3 Write down a note on hospital as an organization. **10**
- Q.4 Discuss about Health care in Global Perspective. **10**

PART-B

- Q.5 Discuss about the Importance of Physical therapy in Healthcare system and how to improve the business related to it. **10**
- Q.6 Analyze the different policies for the Improvement of Healthcare system. **10**
- Q.7 What are the disparities in Healthcare system? Discuss their access of outcomes. **10**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Fourth Semester
CURRENT TRENDS IN SPORTS NUTRITION (MNDS-401)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: *Attempt **FIVE** questions in all; **Q.1** is compulsory. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.*

Q.1 What are the myths about sports nutrition prevalent among athlete and non-athlete population? **20**

PART-A

Q.2 Throw some light on current nutrition guidelines for athletes in training. **20**

Q.3 What are the Career opportunities provided to nutritionists by sports management companies? **20**

Q.4 Describe the role of the Ministry of Human Resource Development in Development of sports and Physical Education. **20**

PART-B

Q.5 Write short notes on:

a) BCCI.

b) ICC.

10x2

Q.6 Give your views on drug abuse and gratuitous violence in the field of sports. **20**

Q.7 What are the considerations to be given for product planning and development with respect to sports? **20**

End Semester Examination, Dec. 2019

M.Sc. (N&D) - Third Semester

SPORTS BIOCHEMISTRY (MNDS-303)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

- Q.1 a) Why carbohydrates are essential for a sports person?
b) What is the role of Glycogen phosphorylase in body?
c) Draw the structure of cane sugar.
d) Discuss in brief the formation of biomolecules having no storage form in our body.
e) Draw the structure of milk sugar. **2x5**

PART-A

- Q.2 Which metabolic cycle is responsible for providing energy in starvation conditions and how? **10**
- Q.3 What is the storage form of glucose in human body? Explain the pathway of degradation of storage form of glucose in detail with all the steps. **10**
- Q.4 What are hormones? Give their well-defined classification. Explain the role of glucagon in carbohydrate metabolism. **10**

PART-B

- Q.5 What do you mean by exercise? Explain any two types of exercise with its effect on metabolism and energy sources. **10**
- Q.6 Define body fluids. Give their composition in body. What happens when fluid gets lost from body? How can these body fluids be replenished in body? **10**
- Q.7 How exercise leads to fluid imbalance in body? Discuss in detail. Also discuss how these can be replaced. **10**

End Semester Examination, Dec. 2019

M. Sc. (Nutrition and Dietetics) – Third Semester

EXERCISE PHYSIOLOGY (MNDS-302)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Discuss exercise physiology in terms of meaning, nature and scope. **10**

PART-A

Q.2 Write a note on the impact of physical training on performance level in sports with reference to muscular changes. **10**

Q.3 Explain cardiovascular functions, responses and adaptation to exercise. **10**

Q.4 Explain in detail about recovery process and occurrence of fatigue in physical work. **10**

PART-B

Q.5 Explain the difference between warm up and cool down. **10**

Q.6 Write a note on exercise in medium and high altitudes. What are the implications of different altitudes on human body? **10**

Q.7 What is technical and tactical preparation of sports person. Also give details on long term and short term planning for training. **10**

End Semester Examination, Dec. 2019
M.Sc. (Nutrition and Dietetics) – Third Semester
NUTRITION FOR VARIOUS GAMES AND SPORTS (MNDS-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

Q.1 Define "the right way to fuel". Explain the role of nutrition in sports fitness and performance. **20**

PART-A

Q.2 Compare the hydration and electrolyte replenishment before competition, during competition and post competition. **20**

Q.3 Describe the training diet, hydration and post recovery meal for Badminton sports player. **20**

Q.4 Define any two principles of proper nutrition in wrestling. **20**

PART-B

Q.5 State the nutritional factors that could produce fatigue to hockey players. **20**

Q.6 Classify the banned substances considered as doping in sports. Discuss the ethics of doping. **20**

Q.7 State the gynecological disorderness in female sports person. **20**

End Semester Examination, Dec. 2019
M.Sc. (N&D) – Second Semester
NUTRITION ESSENTIAL OF SPORTS (MNDS-206)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A**. and any **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 What are the General considerations for the physically active individual? **20**

PART-A

Q.2 What is the role of iron in performance and activity of an athlete? **20**

Q.3 Combination of exercise and dietary restraints contributes more to negative energy balance than exercise alone or diet alone. Comment. **20**

Q.4 Differentiate between Anorexia Nervosa and Bulimia Nervosa. **20**

PART-B

Q.5 Throw some light on use of caffeine in the field of sports. **20**

Q.6 What do you mean by blood doping? Discuss in detail. **20**

Q.7 Write short notes on:

a) Sports energy gel.

b) Sports bars liquid meal.

10x2

End Semester Examination, Dec. 2019
M.Sc. (Nutrition and Dietetics) – Fourth Semester
PUBLIC HEALTH ASPECTS OF MALNUTRITION (MNDP-401)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: *Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.*

Q.1 Describe about epidemiology and different study designs used in it. **20**

PART-A

Q.2 Explain determinants of health with current status from NFHS-4 survey. **20**

Q.3 Write short notes on:
a) Nutrition Transition in India.
b) How India is facing Dual- Nutrition Burden. **20**

Q.4 Discuss the effect of malnutrition at different stages of life-cycle. **20**

PART-B

Q.5 Explain different bias and confounding errors in epidemiological measurement. **20**

Q.6 Discuss the public health implications and prevention strategies of HIV/AIDS **20**

Q.7 Define Rate Ratio, Relative Risk and ODDs Ratio.
An outbreak of chicken pox is reported among children. Investigators found that 300 out of 1000 vaccinated children compared to 10 of 20 unvaccinated children had developed chickenpox. Calculate relative risk and odds ratio of developing chicken pox. **20**

End Semester Examination, Dec. 2019

M.Sc. (Nutrition and Dietetics) – Third Semester

NUTRITION COMMUNICATION FOR HEALTH PROMOTION (MNDP-303)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt any **FIVE** questions in all. **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Discuss the individual and environmental factors which determines the food choices. **10**

PART-A

Q.2 Critically analyze the current national dietary guidelines. **10**

Q.3 Describe the theories of health behavior. **10**

Q.4 Comment on the ethics in nutrition and health communication. **10**

PART-B

Q.5 Write the steps involved in developing nutrition education plan. **10**

Q.6 Describe the concept of nutrition advocacy in detail. **10**

Q.7 How can one evaluate the policy related activities and outcomes? **10**

End Semester Examination, Dec. 2019
M. Sc. (N & D) – Third Semester
PROGRAMME PLANNING IN PUBLIC HEALTH (MNDP-302)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

Q.1 What do you mean by program planning? Do you agree that proper planning of programs enhances the success of work? Comment on it. **10**

PART-A

Q.2 Discuss precede-proceed model in detail. **10**

Q.3 Write short notes on:

a) Cost-benefit analysis.

b) Cost effective analysis. **5x2**

Q.4 Describe the outline of program planning steps in brief. **10**

PART-B

Q.5 Discuss the concept of health economics and its impact on health planning in detail. **10**

Q.6 Discuss program evaluation and review technique (PERT) with example in detail. **10**

Q.7 Discuss any two health committee in detail. Write critical review on present scenario of this health committee. **10**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Third Semester
PROGRAMMES AND POLICIES FOR FOOD AND NUTRITION SECURITY
(MNDP-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: *Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.*

Q.1 What do you understand by food and nutrition security? Discuss the possible improvement in policy making and implementation of the various programmes. **20**

PART-A

Q.2 Discuss the role of national health policies in improving food and nutrition security. **20**

Q.3 How the food production, distribution, access, availability and consumption can affect the nutrition security? **20**

Q.4 Critically appraise the ongoing programme-National Iodine Deficiency Disorder Control Programme (NIDDCP). **20**

PART-B

Q.5 Discuss the impact of enrichment and food fortification techniques to ensure nutritional security. **20**

Q.6 Evaluate the bio-fortification and organic food technologies to offer food security and suitable vehicles for it. **20**

Q.7 Discuss the poor coverage of national food security programme. **20**

End Semester Examination, Dec. 2019
M. Sc. (N & D) – Second Semester
NUTRITION AND PUBLIC HEALTH (MNDP-206)

Time: 3 hrs.

Max Marks: **100**

No. of pages: *1*

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Marks are indicated against each question.

Q.1 Elaborate the direct methods of nutritional status in detail. **20**

PART-A

Q.2 Discuss the determinants of health with current status from NFHS-4 survey. **20**

Q.3 Write short notes on the following:

a) Global health.

b) Primary health care prevention.

10x2

Q.4 Explain the etiology and vitamin D cut-offs to identify its prevalence. **20**

PART-B

Q.5 Explain different bias and confounding errors in epidemiological measurement in detail. **20**

Q.6 Discuss the public health implications and prevention strategies of HIV/AIDS. **20**

Q.7 Explain the national health care delivery system in India. **20**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Fourth Semester
MICROBIOLOGY OF FOOD PROCESSING (MNDF-401)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: *Attempt **FIVE** questions in all; **Q.1** is compulsory. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.*

Q.1 Comment on how microbiology is associated with processed foods and their spoilage. **20**

PART-A

Q.2 Mention the classification and identification of yeasts and molds. **20**

Q.3 What is the principle of spoilage? Explain the factors affecting growth of microbes in food. **20**

Q.4 Discuss the role of chemical preservatives and temperature on food preservation. **20**

PART-B

Q.5 Differentiate between food borne poisoning, infections and intoxication with relevant examples. **20**

Q.6 What is the role of microorganisms in food industry? Elaborate. **20**

Q.7 What is HACCP? How is it important in a food industry? Explain it giving relevant example. **20**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Third Semester
FOOD PRODUCT DEVELOPMENT MARKETING (MNDF-303)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

Q.1 Discuss the new product development characteristics of a product. **10**

PART-A

Q.2 Societal changes influence the new product development. **10**

Q.3 Discuss the reason for development of a new product. **10**

Q.4 State the technological development needed to be considered while developing a new product. **10**

PART-B

Q.5 Differentiate between the real value and consumer perceived value. **10**

Q.6 Describe the different stages of a product cycle in detail. **10**

Q.7 Discuss the recipe standardization and scale up the recipe. **10**

End Semester Examination, Dec 2019

M. Sc. (Nutrition and Dietetics) – Third Semester FOOD BIOTECHNOLOGY (MNDF-302)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks

- Q.1 Briefly answer the following:
- a) Define Biotechnology. Write a note on the scope of biotechnology in food industry.
 - b) How upstream processing is different from downstream processing?
 - c) Write down different varieties of cheese.
 - d) What is peptide vaccine?
 - e) What are the main components of biogas? **2x5**

PART-A

- Q.2 a) What are the genetically modified foods? Illustrate the application of biotechnology in Food industry. **5**
- b) Describe the various steps involved in recombinant technology. **5**
- Q.3 a) Describe various components and function of a bioreactor with the help of a labeled diagram. **5**
- b) Contrast between batch and continuous fermentation. **5**
- Q.4 a) Determine the methods used for the improvement of industrially important fungi by recombinant DNA approach. **5**
- b) Give a detailed account of penicillin mode of action and industrial production. **5**

PART-B

- Q.5 a) Illustrate the methods used for the industrial production of amylases. **5**
- b) Analyze the role of enzymes in dairy industry. **5**
- Q.6 Evaluate the difference between the following:
- a) Enriched media and Differential media.
 - b) Renewable and Nonrenewable energy. **5x2**
- Q.7 Explain Biogas and its components? Illustrate the biogas reactor and application of biogas in detail. **10**

End Semester Examination, Dec 2019
M. Sc. (Nutrition and Dietetics) – Third Semester
ADVANCED FOOD SCIENCE AND CHEMISTRY (MNDF-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: *Attempt **FIVE** questions in all; **Q.1** is compulsory. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks*

Q.1 'Food stability is a major topic of concern for food industries'. Comment on the statement. **20**

PART-A

Q.2 a) Explain the Water Sorption Isotherm with its significance. **10**
b) What is water activity? Discuss how it is useful in predicting the shelf life of food products? **10**

Q.3 Explain all the starch and non-starch based polysaccharides with special reference to their application in food industry. **20**

Q.4 a) Mention the functional properties of protein in detail. **10**
b) Differentiate between protein isolates and protein concentrates. **10**

PART-B

Q.5 a) What are enzymes? Briefly describe the factors influencing enzyme activity. **10**
b) Define immobilized enzymes. Write their role in food processing. **10**

Q.6 a) Describe the heat treatments techniques used for preservation of foods. **10**
b) How is freezing different from irradiation as a preservation technique? **10**

Q.7 a) Outline the processing of tea in detail. **10**
b) What are food pigments? Mention about some important pigments in different fruits and vegetables and the resultant effect of cooking on them. **10**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition & Dietetics) – Second Semester
FOOD SCIENCE AND PROCESSING (MNDF-206)

Time: 3 hrs.

Max Marks: **100**

No. of pages: *1*

Note: *Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.*

Q.1 Define the following terms:

- a) Allied Industries.
- b) Preservation.
- c) Non Enzymatic Browning.
- d) Enzymes.
- e) Artificial Sweeteners.
- f) Composition of Meat.
- g) Food Safety.
- h) HACCP.
- i) Labelling.
- j) Yogurt.

2x10

PART-A

Q.2 Describe the various Components of Food Industries. **20**

Q.3 Discuss the Structure, Nutritive Value and Composition of Cereals. **20**

Q.4 Describe the Processing of Milk and its role in cookery. **20**

PART-B

Q.5 Determine the Processing of Meat and Structure of Egg. **20**

Q.6 Write down the Role of Sugar in cookery. Describe Emulsion and Rancidity. **20**

Q.7 Explain the process of Evaluation of Food Quality. **20**

End Semester Examination, Dec. 2019
M. Sc. – Fourth Semester
NUTRITION IN EMERGENCIES AND DISASTERS (MNDC -401)

Time: **3 hrs.**

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Marks are indicated against each question.

Q.1 Describe how various natural and man-made emergencies and disasters have an impact on nutrition and health status. **20**

PART-A

Q.2 Highlight the Causes of malnutrition in emergency situations. **20**

Q.3 How can we control the spread of communicable disease during an emergency? **20**

Q.4 What is the Scope of assessment of malnutrition in emergencies? **20**

PART-B

Q.5 What are the strategies for Food distribution to the sufferers for nutritional relief and rehabilitation? **20**

Q.6 What are the measures taken during transportation and storage of food. **20**

Q.7 Give example of any one macronutrient and one micronutrient deficiency occurring during emergency and the measure taken to treat the condition. **20**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Third Semester
DIETETIC TECHNIQUE AND COUNSELING (MNDC-303)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

Q.1 Discuss various stages of counseling process. Prepare a leaflet for the patient suffering from hypertension. **10**

PART-A

Q.2 Enumerate the steps of actin that need to be taken care of while establishing rapport with client. **10**

Q.3 Define nutritional assessment. Enumerate any two direct methods of nutritional assessment. **10**

Q.4 Define nutrition counseling. Explain its goals in detail. **10**

PART-B

Q.5 Describe factors influencing food choice of an individual. **10**

Q.6 Discuss in detail the roles and responsibility of a nutrition counselor. **10**

Q.7 Prepare a counseling prescription for a 17 year old girl suffering from anorexia nervosa. **10**

End Semester Examination, Dec. 2019
M.Sc. (Nutrition and Dietetics) – Third Semester
NUTRITION IN CRITICAL CARE (MNDC-302)

Time: 2 Hours

Max Marks: **50**

No. of pages: 1

Note: Attempt any **FIVE** questions in all. **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Give an overview of Critical Care. What are the nutritional guidelines in critical care? **10**

PART-A

Q.2 What are the basic principles of diet to be followed in post-surgery? Explain parenteral nutrition in detail. **10**

Q.3 Explain in detail acid generation, regulation and acid base balance in human body. **10**

Q.4 What are the signs, symptoms, pathophysiology and dietary management of breast cancer? **10**

PART-B

Q.5 Explain in detail patho-physiology and dietary management of trauma patients. **10**

Q.6 Write short notes on:

- a) Ventilator associated pneumonia.
- b) Aspiration pneumonia.

5x2

Q.7 Explain in detail the dietary management of cancer patients. Quote one case study to support your answer. **10**

End Semester Examination, Dec. 2019

M. Sc. (Nutrition and Dietetics) – Third Semester CLINICAL NUTRITION (MNDC-301)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

Q.1 Discuss the mechanism of diet, nutrient and drug interaction in detail. Illustrate with example. **20**

PART-A

Q.2 State pathophysiology and nutritional management of the following:

- a) Diverticular Disease.
- b) Cholecystitis.

10x2

Q.3 Discuss the symptoms, pathophysiology, etiology and dietary management of coronary heart failure. **20**

Q.4 Illustrate the physiology and hormonal regulation of kidney along with diagram. Explain the pathophysiology and nutritional management of glomerulonephritis. **20**

PART-B

Q.5 Discuss following in detail:

- a) COPD.
- b) Bronchopulmonary Dysplasia.

10x2

Q.6 Explain the symptoms, pathophysiology and dietary management of the following:

- a) Pernicious Anemia.
- b) Stroke.

10x2

Q.7 Summarize the condition of osteoporosis by discussing etiology, symptoms, pathophysiology and nutritional management of the disorder. **20**

End Semester Examination, Dec. 2019
M Sc. – Second Semester
NUTRITION RELATED DISORDER (MNDC- 206)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Marks are indicated against each question.

Q.1 Explain Nutritional recommendations for general adverse effects in cancer patients. **20**

PART-A

Q.2 Discuss medical nutrition therapy for an AIDS patient. **20**

Q.3 Explain the pathophysiology of the following in detail.

a) Familial Hypercholesterolemia.

b) Galactosemia.

10x2

Q.4 Discuss the risk factors of cancer.

20

PART-B

Q.5 State the nutritional Management of the following:

a) Rheumatoid Arthritis.

b) Gout.

10x2

Q.6 Describe the pathophysiology of food allergy.

20

Q.7 Discuss the stages of symptoms of chronic alcoholism.

20

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – First Semester
HEALTHCARE MANAGEMENT (MND-DS-105)

Time: 3 hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

Q.1 Define Management. Explain the process of management and the role of group dynamics and team in management. **20**

PART-A

Q.2 Explain the principles of management. **20**

Q.3 Discuss the role of personality and attitudes in management. **20**

Q.4 Explain in detail about the role of outpatient department, ward design and bed wise planning in hospital planning. **20**

PART-B

Q.5 Discuss the health administration in India. Explain in detail the national health programmes. **20**

Q.6 Describe the need of radiology services and clinical laboratory in hospital. **20**

Q.7 Explain the role of Central Sterile Supply Department and Medical Records Department. **20**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – First Semester
FOOD SCIENCE AND PROCESSING (MND-DS-104)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: *Attempt **FIVE** questions in all; **Q.1** is compulsory. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.*

- Q.1 a) Explain how food science as a profession helps in creating interdisciplinary activities among food industries.
b) What are the activities and components of the food industry? **10x2**

PART-A

- Q.2 Give a detailed milling method of wheat .Also write down the significance of tempering in wheat milling. **20**

- Q.3 Enlist products of market milk processing. Explain any two in detail. **20**

- Q.4 Briefly explain the following food preservation methods:
a) High temperature.
b) Chemical.
c) Drying.
d) Radiation. **5x4**

PART-B

- Q.5 a) What is the composition and nutritive value of an egg? Explain preservation methods employed for eggs and meat. **10**
b) What do you understand by emulsion? Discuss the role of fats and oils in cookery. **10**

- Q.6 Differentiate between:
a) Enzymatic and Non enzymatic Browning.
b) Fats and Oils. **10x2**

- Q.7 Write short notes on the following:
a) Pigments.
b) Sensory evaluation.
c) Structure of rice kernel.
d) Caramelisation. **5x4**

End Semester Examination, Dec. 2019
M.Sc. (N&D) - First Semester
HUMAN NUTRITION REQUIREMENT (MND-DS-103)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

Q.1 Discuss the national and international recommendation for various nutrient requirements. **20**

PART-A

Q.2 Define the following:

- a) Dietary fibers.
- b) Resistant starch.
- c) Fat soluble vitamins.
- d) Amino Acids.
- e) Menu planning.

20

Q.3 Describe the methods of estimating energy expenditure and factors affecting its requirements and expenditure. **20**

Q.4 What is water balance in the body? What are the functions, requirement and compartments? **20**

PART-B

Q.5 Describe classification of essential vitamins. Write down digestion, absorption and transportation of any two fat soluble vitamins. **20**

Q.6 Define macro and micro minerals required in body. Elaborate their functions and requirement. **20**

Q.7 Discuss in detail various factors affecting nutritional requirements. **20**

End Semester Examination, Dec. 2019
M.Sc. (Nutrition and Dietetics) – First Semester
HUMAN PHYSIOLOGY (MND-DS-102)

Time: 3 Hrs.

Max Marks: **100**

No. of pages: 1

Note: Attempt **FIVE** questions in all. **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 What is homeostatic regulation? What is the structure and function of a cell? State the properties of nerves and receptor organs. **20**

PART-A

Q.2 Mention the different types of blood groups. What are plasma proteins? Discuss their functions. **20**

Q.3 Describe the physiology of stomach, small intestine and large intestine in detail. **20**

Q.4 Discuss the role of spinal cord, brain stem and autonomic nervous system. **20**

PART-B

Q.5 Explain the mechanism of respiration. Also discuss the process of uptake and delivery of respiratory gases. **20**

Q.6 State the basic properties of heart. How it is affected in hypertension? **20**

Q.7 Explain the structure and function of kidneys. Discuss the role of kidneys in water and electrolyte balance **20**

End Semester Examination, Dec. 2019
M.Sc. (Nutrition and Dietetics) – First Semester
NUTRITIONAL BIOCHEMISTRY (MND-DS-101)

Time: 3 hrs.

Max Marks: **100**

No. of pages: **1**

*Note: Attempt **FIVE** questions in all; **Q.1** is **compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.*

Q.1 "Different metabolic pathways are regulated by different mechanisms". Describe in detail and justify the statement. **20**

PART-A

Q.3 a) How is substrate level phosphorylation different from oxidative phosphorylation? **10**
b) What is P: O ratio with context to oxidative phosphorylation? **10**

Q.3 How Glycogenesis and Glycogenolysis is reciprocally regulated. Explain in detail. **20**

Q.4 Transport vehicles of lipids (LIPOPROTEINS) have different metabolism in body. Explain the metabolism of any two lipoproteins. **20**

PART-B

Q.5 Explain in detail the mechanism of action of insulin in body. **20**

Q.6 How is denovo pathway of nucleotide synthesis different from Salvage pathway? Explain with the help of reactions. **20**

Q.7 How is leading and lagging strand of DNA synthesis carried out in prokaryotes? **20**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Third Semester
GLOBAL PUBLIC HEALTH NUTRITION (MN&D-GE-08)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

Q.1 What do you understand by global public health nutrition? Describe its framework in detail. **10**

PART-A

Q.2 What is fertility? Describe the factors which can influence the fertility. **10**

Q.3 Write short notes on:
a) Menarche and menopause.
b) Any micronutrient deficiency Disease. **5x2**

Q.4 What do understand by mortality? Describe the standardized mortality rate in detail. **10**

PART-B

Q.5 Write short notes on:
a) Objectives of women policy.
b) Objectives of nutrition policy. **5x2**

Q.6 Describe the assessment process of need of policy development. **10**

Q.7 What do understand by demographic transition? Describe the demographic cycle in detail. **10**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Third Semester
SPORTS NUTRITION FOR THE DISABLED (MN&D-GE-07)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

Q.1 Define IPC. Discuss the role and responsibility of IPC. **10**

PART-A

Q.2 Compare the duties and responsibility of Anti – doping committee and Paralympic games committee. **10**

Q.3 Define IPC as an international federation. **10**

Q.4 Describe the body composition assessment of paralympic sports person. **10**

PART-B

Q.5 State the macro - nutrient requirement of paralympic sports person. **10**

Q.6 Classify the various disabled sports organization. **10**

Q.7 State the medical concerns in paralympic sports participation. **10**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Third Semester
POST-HARVEST TECHNOLOGY (MN&D-GE-06)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.

Q.1 What is the need and scope of Post-Harvest Technology? Explain the Pre and postharvest physiology/biochemistry of fresh produce. **10**

PART-A

Q.2 Give detailed properties of ethylene, biosynthesis and mechanism of action of ethylene and its role in fruit ripening. **10**

Q.3 Enlist Postharvest losses of fruits and vegetables along with its causes. **10**

Q.4 Briefly explain the following:
a) Vegetable hardening.
b) Senescence. **5x2**

PART-B

Q.5 a) Discuss the postharvest handling and quality assurance of perishables. **5**
b) What do you understand by Maturity standards of perishables? Explain. **5**

Q.6 Differentiate between:
a) Climacteric and non-climacteric fruits
b) Maturity indices and Harvesting indices **5x2**

Q.7 Write short notes on the following:
a) Quality criteria in standard for fresh fruits and vegetables.
b) Factors affecting quality of fruits and vegetables. **5x2**

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Third Semester
HOSPITAL ORGANIZATION AND MANAGEMENT (MN&D-GE-05)

Time: 2 hrs.

Max Marks: **50**

No. of pages: **1**

Note: *Attempt **FIVE** questions in all; **Q.1** is compulsory. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Each question carries equal marks.*

Q.1 Define the following:

- a) Hospital.
- b) Management.
- c) Organization Behavior.
- d) MBO.
- e) Planning.

2x5

PART-A

Q.2 Explain the concept of scientific management.

10

Q.3 What is planning? Discuss the components and steps of planning.

10

Q.4 State and explain the traits of a leader. What is the significance of leadership in an organization?

10

PART-B

Q.5 What do you understand by the term 'motivation'? Explain the different types of motivation and also discuss any one theory of motivation.

10

Q.6 How is management affected by the society and culture? Explain giving relevant examples.

10

Q.7 Explain the nature and structure of organization. Also discuss the different types of organizations.

10

End Semester Examination, Dec. 2019
M. Sc. (Nutrition and Dietetics) – Second Semester
HOSPITAL ADMINISTRATION (MN&D-GE-04)

Time: 2 hrs.

Max Marks: **50**

No. of pages: 1

Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

Q.1 Examine critically how organizations and people work within the healthcare system. **10**

PART-A

Q.2 Define 'management'. What are the principles of management? **10**

Q.3 What is the need for organizational hierarchy in large organizations? Explain the principles of a sound organization in detail. **10**

Q.4 Explain the different theories for 'leadership'. **10**

PART-B

Q.5 Describe the importance of effective communication and two way communication in an organization. **10**

Q.6 Explain planning, objectives of planning and the strategies of planning in an organization. **10**

Q.7 Discuss the principles and importance of directing in an organization. **10**

End Semester Examination, Dec. 2019
Master of Physiotherapy – Third Semester
LOGICAL AND QUANTITATIVE REASONING SKILLS (PT-GE-03)

Time: 3 Hours

Max Marks: **50**

No. of pages: 1

Note: Attempt any **FIVE** questions in all. **Q.1 is compulsory**. Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B**. Marks are indicated against each question.

- Q.1 a) Define Data Base.
b) Explain Citation.
c) Explain the types of referencing style.
d) What is H index?
e) Enumerate four 'Database' for Physiotherapy.
f) What is indexing of an article?
g) Explain Impact factor.
h) Differentiate between systemic review and Meta-analysis.
i) Discuss level of evidence.
j) Define QPSIE. **1x10**

PART-A

- Q.2 Describe the different types of plagiarism. **10**
- Q.3 Write in detail the steps that are involved in searching a journal for publication. **10**
- Q.4 Describe PICOT framework. Explain with example related to your specialty. **10**

PART-B

- Q.5 What is EBP? Explain its importance of it and enumerate its steps. **10**
- Q.6 Describe in detail how to write a research report for a project. **10**
- Q.7 Discuss the ethical issues issue that need to be considered while conducting a research. **10**