

End Semester Examination, Dec. 2014
B. Sc. (N & D) - First Semester
FUNDAMENTALS OF FOOD AND NUTRITION (BND-101)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss in detail about different functions of foods. Justify your answer with suitable examples. **10**
- Q.2 Give a nutritional classification of proteins. Describe functions, RDA, dietary sources and deficiency problems related to protein. **10**
- Q.3 What are the principles of cooking? Explain the different methods of cooking and advantages/disadvantages of each method of cooking. **10**
- Q.4 Classify the food groups according to ICMR. Draw a food pyramid and explain the role of food pyramid in meal planning. **10**

PART-B

- Q.5 Define the following:
a) Health
b) Dietetics
c) Immunity
d) Infection
e) Malnutrition **1x5**
- Q.6 Give a broad classification of nutrients through a flow chart. **5**
- Q.7 Explain the functions, RDA, dietary sources and deficiency problem of vitamin A. **5**
- Q.8 How we determine the energy value of a food? **5**
- Q.9 Explain the role of water in our body. **5**
- Q.10 Write the advantages and disadvantages of convenience foods. **5**
- Q.11 What do you mean by genetically modified foods? Explain the advantages and disadvantages of genetically modified foods. **5**

End Semester Examination, Dec. 2014

B. Sc. (N & D) - First Semester

PHYSIOLOGY (BND-102)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain the cell structure with the help of a diagram. Also describe the functions of cellular components. **10**
- Q.2 Describe the digestion and absorption of carbohydrates, fats and proteins. Draw the diagram of human digestion system. **10**
- Q.3 Explain the cardiac cycle and cardiac output. **10**
- Q.4 What are various physiological changes that occur during pregnancy? Explain them. **10**

PART-B

- Q.5 Give the composition of blood along with its major functions. **5**
- Q.6 Describe the functions of liver. **5**
- Q.7 Write short notes on:
a) Regulation of body temperature.
b) Hypertension. **2½x2**
- Q.8 Draw a well labelled diagram of nephron. **5**
- Q.9 Write the functions of thyroid and para-thyroid glands. **5**
- Q.10 What is cerebrospinal fluid? Write its functions. **5**
- Q.11 Explain human blood group system. **5**

End Semester Examination, Dec. 2014
B. Sc. (N & D) - First Semester
FUNDAMENTALS OF BIOCHEMISTRY (BND-103)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What are carbohydrates? Classify them. **10**
- Q.2 Explain the biochemical role and deficiency of:
a) Calcium.
b) Iron. **5x2**
- Q.3 Write the biological importance of proteins. **10**
- Q.4 Describe the role of vitamin-A in visual cycle. **10**

PART-B

- Q.5 Define biochemistry? What are its objectives and scopes? **5**
- Q.6 Define the following terms:
a) Isomerism.
b) Epimers.
c) Phospholipids.
d) Acid number.
e) Hydrogen bonds. **1x5**
- Q.7 Differentiate between oils and waxes. **5**
- Q.8 Classify vitamins according to their solubility. **5**
- Q.9 List down the biochemical functions of vitamin-C and vitamin-K. **5**
- Q.10 Explain fatty acids with the examples of essential fatty acids. **5**
- Q.11 Write the sources of:
a) Vitamin-D.
b) Folic acid.
c) Phosphorus.
d) Potassium.
e) Vitamin-E. **1x5**

End Semester Examination, Dec. 2014

B. Sc. (N & D) - First Semester

ENGLISH (BND-104)

Time: 3 hrs

Max Marks: **60**

No. of pages: 3

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Write an essay on **any one**:
- The status of women
 - The problem of unemployment
 - Tourism in India
- 10**
- Q.2 Recently a workshop on human welfare camp was organized in your college. Write a letter to your mother describing about the camp and the learning from it. **10**
- Q.3 Delhi ministry has recently organized a workshop on Clean Delhi keeping in mind the environment getting polluted and contaminated. Write an article in 150-200 words expressing your views on clean environment and how to follow the rules of keeping it safe and green. **10**
- Q.4 Read the passage given below and then answers the following questions:

The doctors clamouring against reservations for OBCs have demanded that merit be the sole criteria for admission to medical and engineering colleges. Then, how is it that they haven't objected either to the NRI quota or candidates who procure admission on the basis of capitation fee? Does this not affect quality? Reservation was introduced in the Kolhapur State as early as in 1902 and in the State of Mysore in 1921. In Tamil Nadu, where the human health index is much better than in other States, there is as much as 69 percent reservation. Let us take for a moment that upper caste doctors are meritorious. But is this of any help to the nation when many of them use elite institutes as springboard to go abroad for higher wages. Nearly 70 percent of doctors from AIIMS doctors go abroad. How are these elite institutes, under such circumstances, serving the interests of the common people? On the other hand, it has been in Tamil Nadu that a good number of SC/ST/OBC doctors, who procure admission into colleges due to the reservation policy, stick to their State or hometown, resulting in better healthcare services.

Reservation is not a phenomenon exclusive to our country. The American MNC, IBM voluntarily introduced reservations for Blacks in 1930. In Malaysia there are reservations not just in jobs but also in contracts, licenses and company shares for Malays. Reservations for the depressed and weaker sections exist in many countries like Brazil, South Africa, Japan, Netherland and Ireland. There is 50 percent reservation for blacks and women in the medical faculty of Harvard University. And the Whites have never made an issue of being eligible only for 50 percent of the seats. In fact, it is the handful of anti-reservationist doctors, who talk of disintegration of society on account of reservation, who are really responsible for creating dissension and obstacles in the ways of social justice of the OBCs. The media have, of course, played a negative role. But it is a reality that Indian society is constituted on caste

lines. If the anti-reservations are so concerned about the disintegration of society on caste lines, they should first lead the struggle against social discrimination.

Reservation gets a job or admission even if they get less percentage of marks, In one of the cases a person was in Indian Revenue Service. He saw that candidates getting high marks in a competition were not necessarily successful in the field. Merit, as it is being presently understood, does not include honesty, hard work and patriotism. In the American school system, besides the syllabus, students have to undergo practical training in social services, etc. and marks are added in the certificate based on performance in this area. The only people tailing of merit today are those who have studied in public schools or whose children study in such schools.

The expenditure incurred on education in public schools is 50 to 100 times more than those of corporation/ government schools. There is a vast difference in quality between the teachers of public and government schools. Parents who can afford to send their children to public schools are mostly educated. They not only teach the children themselves at home but also provide coaching for them. On the other hand, parents who send their children to corporation/government schools are mostly uneducated. These children have to lend a helping hand to their parents after schools hours. Under such circumstances, what is wrong if such students ask for concession of a few marks?

Reservation will bring unity and integrated in society. Reservation in elite institutes will enable people from different social strata to come together and established bonhomie among them. It is true that reservation is not a permanent solution to the vexed problem of our society. As and when equal and compulsory education is introduced in the country. Dalits and OBCs will not stake their claims to reservation.

Reservation is not a panacea for the economic backwardness of the country. For this purpose, the government has already launched many schemes. Reservations is only a concession given to socially and educationally backward people, so that they may integrate with the mainstream. We have no objection if the poor among the upper caste people, too are the benefit of reservations. But the problem here is that the among them start taking advantage of the policy.

- a) Why were the Indian doctors clamouring against reservation? **2**
- b) Write down the procedure on the basis of capitation fee. **2**
- c) What ideas do you know about reservations in Malaysia and Harvard University? **2**
- d) What view is taken by the Indians and Americans about merit? **2**
- e) Point out the difference in Public as well as Government University. **2**

PART-B

- Q.5 Fill in the blanks spaces with the correct preposition: **1x5**
- a) The train leaves _____ 4:00 PM.
 - b) Aishwarya is very careful _____ her dress.
 - c) Their customs are similar _____ us.
 - d) God will protect us _____ all harm.
 - e) Birds are flying _____ my head.
- Q.6 What is the meaning of the word 'Phonetics'? Write three phonetic symbols of the English sounds with one example each. **5**
- Q.7 Transcribe the following words using the IPA symbols:

a) Paper b) Car c) Awesome d) Nose e) Teacher **5**

Q.8 a) Make two words using the following prefix:
i) Anti- ii) Dis- iii) extra- iv) Fore- v) Pre- **1X5**

b) Make two words using the following suffix:
i) -able ii) -ate iii) -ship iv) -wise v) -hood **1X5**

Q.9 Complete the sentences using the appropriate article:
a) He wants to become _____ HR.
b) Miss Lin speaks _____ Chinese.
c) I borrowed _____ pencil from your pile of pencils and pens.
d) One of the students said, " _____ professor is late today".
e) Eli likes to play _____ volleyball. **1x5**

Q.10 What is the difference between listening and hearing? Write any three techniques of active listening. **5**

Q.12 Correct the following sentences:
a) I shall inform to your brother.
b) We discussed about the matter.
c) She resembles with her elder sister.
d) I did it myself.
e) I stay in Delhi itself. **1x5**

End Semester Examination, Dec. 2014
B. Sc. (N & D) - Second Semester
NUTRITIONAL BIOCHEMISTRY (BND-201)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What is Krebs's cycle? State in detail the steps of cycle. Calculate number of ATP produced in cycle. **10**
- Q.2 Write a detailed note on insulin and glucagon. **10**
- Q.3 Define and classify enzymes in detail. **10**
- Q.4 Discuss B-oxidation of fatty acids in detail. **10**

PART-B

- Q.5 Explain the reaction of deamination and transamination. **5**
- Q.6 Write a short note on cholesterol and its biochemical importance. **5**
- Q.7 What is Henderson Hasselbatch equation? Explain in brief. **5**
- Q.8 Define Buffers and Osmosis. **5**
- Q.9 Give account of total number of ATP produced during glycolysis. **5**
- Q.10 Discuss structure and function of DNA in brief. **5**
- Q.11 Explain the process of transport across cell membrane in brief. **5**

End Semester Examination, Dec. 2014
B. Sc. (N & D) - Second Semester
NUTRITION THROUGH LIFE CYCLE (BND-202)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss the physiological changes which occur during infancy. How do these influences nutritional requirement of on infant? **10**
- Q.2 Explain the developmental stages during pregnancy. Discuss the nutritional management during pregnancy. **10**
- Q.3 Explain the growth and development during childhood. Discuss the food pattern and nutritional requirement during childhood. **10**
- Q.4 Discuss giving reasons, various nutrition related problems common among the elderly. What steps would you advocate to overcome the same? **10**

PART-B

- Q.5 Explain the following terms:
a) Growth.
b) Development.
c) Menarche.
d) Menopause.
e) Hyperplasia and hypertrophy. **1x5**
- Q.6 Write the celebration dates of the following:
a) World health day.
b) World children's day.
c) National nutrition week.
d) World cancer day.
e) World diabetes day. **1x5**
- Q.7 "Mother milk is best milk". Explain. **5**
- Q.8 Describe the nutrition related complications during pregnancy. **5**
- Q.9 What is weaning? How we introduce weaning foods to a infant? **5**
- Q.10 Discuss the importance of low cost balance diet in a meal planning. **5**
- Q.11 Describe baby friendly hospital initiatives. **5**

End Semester Examination, Dec. 2014

B. Sc. (N & D) - Second Semester CLINICAL PSYCHOLOGY (BND-203)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail various methods of studying behaviour. **10**
- Q.2 Define growth and development. What are the general principles of a development? **10**
- Q.3 Define emotion. Explain various theories associated with emotion. **10**
- Q.4 Define counselling. Differentiate between directive and non-directive techniques of counselling. **10**

PART-B

- Q.5 Write a brief note on contribution of psychology in the field of nutrition and dietetics. **5**
- Q.6 Differentiate between growth and development. **5**
- Q.7 Write a short note on eating disorder. **5**
- Q.8 Explain role and responsibilities of a counsellor. **5**
- Q.9 Explain any one consulting technique for children. **5**
- Q.10 Define psychology. Explain various work areas of a psychologist. **5**
- Q.11 Family therapy plays an important role in counselling. Explain this by giving suitable examples. **5**

End Semester Examination, Dec. 2014
B. Sc. (N & D) - Third Semester
THERAPEUTIC NUTRITION AND DIETETICS (BND-301)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain therapeutic nutrition and therapeutic adaptation of normal diet in detail. **10**
- Q.2 Discuss etiology, manifestation and dietary treatment for constipation. **10**
- Q.3 Explain etiology and dietary management for cirrhosis of liver. **10**
- Q.4 Discuss etiology, manifestation and dietary management for diabetes mellitus. **10**

PART-B

- Q.5 What alteration would you suggest in the diet plan for an old man? **5**
- Q.6 Explain methods of feeding in hospital in brief. **5**
- Q.7 Write a short note on gall stones. **5**
- Q.8 Discuss anorexia and bulimia in brief. **5**
- Q.9 Give dietary management for a patient recovering from tuberculosis. **5**
- Q.10 State principles involved in planning diet for a patient suffering from acute renal failure. **5**
- Q.11 Write a short note on hypertension. **5**

End Semester Examination, Dec. 2014
B. Sc. (N & D) - Third Semester
PROBLEMS IN HUMAN NUTRITION (BND-302)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss the biochemical changes in carbohydrate, protein, fat and electrolytes in protein energy malnutrition. **10**
- Q.2 Discuss the National Prophylaxis Programme to control vitamin A deficiency. **10**
- Q.3 Explain the etiology of Anemia in detail. **10**
- Q.4 Explain the National Iodine Deficiency Disorders Control Programme. **10**

PART-B

Write short notes on:

- Q.5 Sources of vitamin A. **5**
- Q.6 Symptoms of iron deficiency (Anemia). **5**
- Q.7 Symptoms of IDD. **5**
- Q.8 Pathological changes in PEM. **5**
- Q.9 Importance of iron for a human body. **5**
- Q.10 Classification of PEM. **5**
- Q.11 Plan of action to overcome vitamin A deficiency. **5**

End Semester Examination, Dec. 2014

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

COMMUNITY RESOURCE MANAGEMENT AND EXTENSION (BND-303)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Define income. Explain in detail, different types of income with suitable examples. **10**
- Q.2 Explain the concept of extension. What are various principles of extension education? **10**
- Q.3 Define communication. Explain the different models of communication by giving relative importance of elements of communication. **10**
- Q.4 What is demonstration? Explain the steps and factors to be kept in mind while adopting demonstration as one of the method of community contact. **10**

PART-B

- Q.5 Briefly explain why management is considered both as science and as an art. **5**
- Q.6 Explain giving suitable examples how an individual can supplement his or her family income. **5**
- Q.7 Write short notes on:
a) Group approach
b) Empathy **5**
- Q.8 Briefly explain the functions of communication citing suitable examples. **5**
- Q.9 Define fatigue. What are the ways by which you can reduce fatigue? **5**
- Q.10 State the qualities of a good extension worker. **5**
- Q.11 What are various motivating factors? Explain any one in detail. **5**

End Semester Examination, Dec. 2014

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

COMPUTER APPLICATIONS (BND-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**.

PART-A

- Q.1 What are the various components of a computer? Support your answer with the help of suitable flowchart. **10**
- Q.2 Define an operating system. Illustrate the various functions of an operating system giving relevant examples. **10**
- Q.3 What do you understand by network topology? Write any two of them in detail. **10**
- Q.4 What is an internet? Discuss the various uses of internet. **10**

PART-B

- Q.5 Write a brief note on various features of MS Word. **5**
- Q.6 What is Windows desktop? Discuss the various components and functions of windows desktop. **5**
- Q.7 What are the other types of operating systems apart from windows? Discuss any one of it in short. **5**
- Q.8 What are the various types of networks used in computers? **5**
- Q.9 Write about the various types of storage devices used in computers. **5**
- Q.10 Write short notes on **any two**:
- a) Printers
 - b) Accessories
 - c) File access methods
 - d) Scanners
- 2½x2**
- Q.11 Convert the following:
- a) $(AB)_{16} = (?)_{10}$
 - b) $(50)_{10} = (?)_2$
 - c) $(10011)_2 = (?)_{10}$
 - d) $(1111)_2 = (?)_{10}$
 - e) $(1027)_8 = (?)_{10}$
- 1x5**

End Semester Examination, Dec. 2014

B. Sc. (N & D) - Fourth Semester

COMMUNITY NUTRITION (BND-401)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 a) Enlist the various process of community development programme. **2**
b) Write a short note on Village Panchayat for community development programme. **4**
c) Discuss in brief developing the village school as a community centers. **4**
- Q.2 "National Prophylaxis Programme for prevention of blindness due to vitamin A deficiency". Discuss the programme in detail. **10**
- Q.3 Write a detailed note on "National Tuberculosis Programme". **10**
- Q.4 What is food adulteration? When an article of food is deemed to be adulterated? Explain. **10**

PART-B

- Q.5 Write a note on "Applied nutrition programme". **5**
- Q.6 Write notes on:
a) National Diabetes Control Programme.
b) National Family Welfare Programme. **2½x2**
- Q.7 Enlist various dietary assessment methods. Discuss any three methods in detail. **5**
- Q.8 Write a note on primary health care. **5**
- Q.9 Discuss securing participation of people and involving them as a process of community development programme. **5**
- Q.10 Write a note on "Prevention of Food Adulteration Act, 1954". **5**
- Q.11 What is a National Nutrition Policy? Enlist the various aims of the National Nutrition Policy. **5**

End Semester Examination, Dec. 2014
B. Sc. (N & D) - Fourth Semester
NUTRITION FOR HEALTH, FITNESS AND SPORTS (BND-403)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss in detail the nutritional requirements for a sports person. **10**
- Q.2 Write in detail about the mobilization of fuel stores during exercise. **10**
- Q.3 Discuss the Satvic, Tamsic and Rajsic kind of foods. **10**
- Q.4 Highlight the importance of roll of fluid balance in sports person. How can one tackle the problem of dehydration in sports person? **10**

PART-B

- Q.5 Write short notes on **any two**:
- a) Sports drink
 - b) Yoga
 - c) BMI
- 2½x2**
- Q.6 Write short note on Ergogenic aids with examples. **5**
- Q.7 What is the difference between health status and specific fitness? **5**
- Q.8 What is the interrelationship between health, nutrition and physical fitness? **5**
- Q.9 Write short note on vegetarianism. **5**
- Q.10 Briefly describe:
- a) Holistic approach to management of fitness and health.
 - b) Minimal standards for Leanness.
- 2½x2**
- Q.11 Describe the ABCD approach involved in measuring the nutritional status. **5**

End Semester Examination, Dec. 2014
B. Sc. (N & D) - Fourth Semester
ENTREPRENEURSHIP MANAGEMENT (BND-404)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss the role of small business unit in India. What measures has the Government taken for the promotion of small business? **10**
- Q.2 Explain classification of resources that an enterprise needs to put in place to pursue its chosen strategy. **10**
- Q.3 Explain marketing mix. Explain briefly its all components. **10**
- Q.4 What is personal management? Explain in detail the objectives of personal management. **10**

PART-B

- Q.5 What is the need of entrepreneurship in an economy? Give atleast five benefits. **5**
- Q.6 Briefly discuss any six approaches to generation of business ideas. **5**
- Q.7 Buy-one get-one free is an example of one of the technique of promotion mix. Name this technique. Explain other techniques of promotion mix. **5**
- Q.8 What is CPA? Explain three tier system of CPA. **5**
- Q.9 What are financial ratios? Explain the advantages of any two financial ratios. **5**
- Q.10 What is business ethics? Explain the responsibility of an entrepreneur towards society. **5**
- Q.11 In a good label what are the various pre-requisite required. Explain. **5**

End Semester Examination, Dec. 2014

B. Sc. (N & D) - Fifth Semester

FOOD MICROBIOLOGY (BND-501)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss in detail the various steps involved in the investigation of food borne disease outbreak. **10**
- Q.2 Write about the spoilage and preservation of any food product. **10**
- Q.3 What is HACCP? Enumerate the basic principles of HACCP in detail. **10**
- Q.4 Differentiate between a prokaryotic and an eukaryotic cell using relevant diagrams. **10**

PART-B

- Q.5 What are the various forms of asexual reproduction seen in fungi? **5**
- Q.6 How are different foods classified on the basis of their ease of spoilage? Give the classification using suitable examples. **5**
- Q.7 Give the various functions of the cell wall of a bacterium. How is the cell wall of a bacterium different from a plant cell wall? **5**
- Q.8 Identify the role of any one international and one national food control enforcement agency. **5**
- Q.9 Write a brief note on water microbiology testing. **5**
- Q.10 Discuss any one form of preservation technique employed to preserve milk at industrial level. **5**
- Q.11 Write short notes on **any two**:
- a) High temperature preservation
 - b) Ascus
 - c) Molds
 - d) Cell membrane of bacteria
- 2½x2**

End Semester Examination, Dec. 2014
B. Sc. (N & D) - Fifth Semester
STATISTICS AND RESEARCH METHODOLOGY (BND-502)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain the meaning and significance of a research design. **10**
- Q.2 Enumerate the different methods of collecting data. Which one is the most suitable for conducting an enquiry regarding family welfare programme in India? Explain its merits and demerits. **10**
- Q.3 Define and explain arithmetic mean. The following table shows marks in physiology of the students of a class. Calculate arithmetic mean.
- | Marks | No. of students |
|-------------|-----------------|
| More than 0 | 30 |
| More than 2 | 28 |
| More than 4 | 24 |
| More than 6 | 18 |
| More than 8 | 10 |
- 10**
- Q.4 What do you mean by 'sample design'? What points should be taken into consideration by a researcher in developing a sample design for his research project? **10**

PART-B

- Q.5 What do you mean by research? Explain its significance in modern times. **5**
- Q.6 Explain and illustrate the procedure of selecting a random sample. **5**
- Q.7 What are the guiding considerations in the construction of a questionnaire? Explain. **5**
- Q.8 Explain nominal and interval scale of measurement with examples. **5**
- Q.9 Find the median of the following series:
- | | | | | | | | | | |
|-------------|---|---|---|----|----|----|----|---|----|
| Size | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Frequencies | 2 | 3 | 8 | 10 | 12 | 16 | 10 | 8 | 6 |
- 5**
- Q.10 Explain coefficient of skewness in brief. **5**
- Q.11 Write a short note on objectives of a research. **5**

End Semester Examination, Dec. 2014

B. Sc. (N & D) - Sixth Semester

FOOD SCIENCE (BND-601)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail the sensory characteristics of food. **10**
- Q.2 Write short notes on:
a) Leavening
b) Pan broiling **5x2**
- Q.3 Explain various plant pigments and effects of cooking on them. **10**
- Q.4 'Fermented foods have many health benefits'. Justify. **10**

PART-B

- Q.5 Explain effect of wet heat on starch. **5**
- Q.6 Differentiate between condensed and evaporated milk. **5**
- Q.7 Describe the process leading to Rigor Mortis in animals. **5**
- Q.8 Give reasons for the following:
a) Scorching of milk.
b) Why protein can be given to lactose intolerant?
c) Chapatti turns brown on cooking.
d) Thinning of custard on adding fruits.
e) Loss of vigor in egg yolk if stale. **1x5**
- Q.9 What do you understand by homogenization? **5**
- Q.10 Write a short note on role of sugar cookery. **5**
- Q.11 What is rancidity? Explain its types and measures to prevent rancidity in oils. **5**

End Semester Examination, Dec. 2014
B. Sc. (N & D) - Sixth Semester
INSTITUTIONAL FOOD ADMINISTRATION (BND-602)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- | | | |
|-----|--|-----------|
| Q.1 | Discuss planning and organization of storage spaces. | 10 |
| Q.2 | Explain in detail the methods of evaluation of recipes. | 10 |
| Q.3 | Discuss the various forms of service in detail. | 10 |
| Q.4 | Discuss the planning of equipments used in an institutional kitchen. | 10 |

PART-B

Write short notes on the following:

- | | | |
|------|--|-------------|
| Q.5 | Planning menus for hospitals. | 5 |
| Q.6 | Selection and buying of:
a) Meat, fish, poultry
b) Fruits and vegetables | 2½x2 |
| Q.7 | Table decoration. | 5 |
| Q.8 | Work simplification. | 5 |
| Q.9 | Safety in institutional kitchens. | 5 |
| Q.10 | Aspects of meal management. | 5 |
| Q.11 | Method of writing recipes. | 5 |

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Third Semester
PUBLIC HEALTH NUTRITION (MNC-301)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- | | | |
|-----|--|-----------|
| Q.1 | Discuss the trends which impact on public's health. | 10 |
| Q.2 | Discuss the federally funded food assistance and nutrition programme in India. | 10 |
| Q.3 | How will you integrate food safety into nutrition guidance? | 10 |
| Q.4 | How will you provide nutrition care through a public health team? | 10 |

PART-B

Write short notes on:

- | | | |
|------|--|----------|
| Q.5 | Definition of health and public health. | 5 |
| Q.6 | Role of various branches of government in policy making. | 5 |
| Q.7 | Current food safety issues. | 5 |
| Q.8 | Vital statistics and their significance. | 5 |
| Q.9 | Impact of information technology on nutrition practices. | 5 |
| Q.10 | Nature of communicable diseases. | 5 |
| Q.11 | Community needs assessment. | 5 |

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Third Semester
INSTITUTIONAL FOOD MANAGEMENT (MNC-302)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss in detail various factors affecting storage space allocation. **10**
- Q.2 With the help of example explain the steps of construction of menu. **10**
- Q.3 What is pricing? What are the factors affecting pricing in any food service organization? **10**
- Q.4 Discuss the development of food service institutions in India. **10**

PART-B

- Q.5 'Management plays an important role in any catering operation'. Justify the statement. **5**
- Q.6 Differentiate between traditionally processed foods and restructured foods. **5**
- Q.7 What are the cooking techniques used in food service organization? Explain any five. **5**
- Q.8 Write a short note on formal food service styles. **5**
- Q.9 Differentiate between autocratic and bureaucratic approach to personnel management. **5**
- Q.10 Write short notes on:
a) Material cost
b) Overhead cost **2½x2**
- Q.11 'Marketing the products of catering is a skill requiring activity'. Justify. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Third Semester
NUTRITION RELATED DISORDERS (MNC-303)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Write a detailed note on the different components of nutritional care and support that should be given to a HIV positive patient. **10**
- Q.2 Discuss the long term effects of chronic alcoholism on various body organs. **10**
- Q.3 What are various methods employed to diagnose food allergies? **10**
- Q.4 Discuss in detail the different signs and symptoms presented by a person suffering from Wilson disease. **10**

PART-B

- Q.5 What is Galactosemia? What tests are used to identify / diagnose galactosemia? **5**
- Q.6 What is meant by phenylketonuria? How is it caused? **5**
- Q.7 Discuss the etiology of malabsorption syndrome in brief. **5**
- Q.8 Write a note on nutritional care given to terminally ill patient. **5**
- Q.9 a) What are the characteristic symptoms of maple syrup urine disorder?
b) What are the different types of MSUB? **2½x2**
- Q.10 What are the major forms of therapies used to treat a cancer patient? **5**
- Q.11 Write short notes on **any two**:
- a) Osteoarthritis
 - b) Homocystenuria
 - c) Difference between HIV and AIDS
 - d) Celiac disease
- 2½x2**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Fourth Semester
MANAGEMENT OF NUTRITION PROGRAMMES (MNC-401)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss critical appraisal of vitamin-A prophylaxis in detail. **10**
- Q.2 Describe Sussman's four step model of empirical curriculum development of programme development in detail. **10**
- Q.3 Discuss community participation and partnership in detail. **10**
- Q.4 Explain food, nutrition and health security in detail. **10**

PART-B

- Q.5 Discuss formative evaluation approach in brief. **5**
- Q.6 Write a short note on sources and criteria of a programme evaluation. **5**
- Q.7 Enumerate steps of programme planning in brief. **5**
- Q.8 Discuss right-based approach in brief. **5**
- Q.9 What are millennium development goals? Discuss in brief. **5**
- Q.10 Discuss management information system in brief. **5**
- Q.11 Discuss precede-proceed planning model of programme development in brief. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Fourth Semester
NUTRITION IN EMERGENCIES AND DISASTER (MNC-402)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Classify natural and manmade disasters. Explain in detail nutritional management in any one emergency situation by using an illustrations from Indian subcontinent. **10**
- Q.2 What are the causes of protein energy malnutrition (PEM) in emergency situation? How one can manage PEM in different phases? **10**
- Q.3 What are the indicators of malnutrition? Explain clinical signs for screening acute malnutrition in an emergency situation. **10**
- Q.4 What do you mean by environmental health? Discuss in detail about water supply, shelter and environmental sanitation to maintain environmental health in an emergency situation. **10**

PART-B

- Q.5 Write full forms of the following:
a) UNDHA
b) UNDRO
c) UNCHR
d) UN/ILO
e) USOFDA **1x5**
- Q.6 Explain the roll of immunization to prevent communicable diseases in emergencies. **5**
- Q.7 Write a short note on nutritional surveillence and individual screening. **5**
- Q.8 How we assess food need during natural disasters? Explain. **5**
- Q.9 How we organize mass feeding programme by general food distribution pattern? Discuss. **5**
- Q.10 How we evaluate a feeding programme? Discuss with suitable examples. **5**
- Q.11 Explain the public nutrition approach to tackle nutritional problems during emergencies. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - First Semester
ADVANCED NUTRITIONAL BIOCHEMISTRY (MND-101)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 "Carbohydrates show the property of isomerism", justify this statement. **10**
- Q.2 Explain the pathway by which glycogen is degraded in the body. **10**
- Q.3 Define and classify enzymes. Also discuss various factors effecting enzyme activity. **10**
- Q.4 Discuss the steps of beta oxidation of fatty acid. What will be the net energy yield per mole upon its complete oxidation? **10**

PART-B

- Q.5 Write a short note on:
a) Hydrogenation
b) Saponification **5**
- Q.6 Differentiate between nucleotides and nucleosides. **5**
- Q.7 Tabulate different vitamins based on following categories:
a) Scientific name
b) Structure
c) Function
d) Sources
e) Deficiency disorders **1x5**
- Q.8 Give a brief account of mechanism of absorption of product of protein in digestion. **5**
- Q.9 Define and classify hormones. **5**
- Q.10 Explain various forms of plasma proteins and their functions. **5**
- Q.11 Give the structure of the following:
a) ATP
b) Sucrose **2½x2**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - First Semester
ADVANCED NUTRITIONAL BIOCHEMISTRY (MND-101)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 "Carbohydrates show the property of isomerism", justify this statement. **10**
- Q.2 Explain the pathway by which glycogen is degraded in the body. **10**
- Q.3 Define and classify enzymes. Also discuss various factors effecting enzyme activity. **10**
- Q.4 Discuss the steps of beta oxidation of fatty acid. What will be the net energy yield per mole upon its complete oxidation? **10**

PART-B

- Q.5 Write a short note on:
a) Hydrogenation
b) Saponification **5**
- Q.6 Differentiate between nucleotides and nucleosides. **5**
- Q.7 Tabulate different vitamins based on following categories:
a) Scientific name
b) Structure
c) Function
d) Sources
e) Deficiency disorders **1x5**
- Q.8 Give a brief account of mechanism of absorption of product of protein in digestion. **5**
- Q.9 Define and classify hormones. **5**
- Q.10 Explain various forms of plasma proteins and their functions. **5**
- Q.11 Give the structure of the following:
a) ATP
b) Sucrose **2½x2**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - First Semester
ADVANCED HUMAN PHYSIOLOGY (MND-102)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain the structure and function of kidneys. **10**
- Q.2 Discuss the process of digestion and absorption of gastro intestinal tract. **10**
- Q.3 Describe the active transport process in detail. **10**
- Q.4 Define the following:
- a) Deglutition
 - b) Anoxia
 - c) Heart rate
 - d) GFR
 - e) Cerebrospinal fluid
- 2x5**

PART-B

- Q.5 Describe the mechanism of breathing. **5**
- Q.6 What are the basic properties of nerves and receptor organs? **5**
- Q.7 Describe the structure and function of hemoglobin. **5**
- Q.8 Match the following enzyme/hormone with the place of their occurrence:
- | | |
|--------------------|-------------|
| a) Stomach | Trypsinogen |
| b) Pancreas | Bile |
| c) Liver | Ptyalin |
| d) Small intestine | Pepsinogen |
| e) Mouth | Erepsin |
- 1x5**
- Q.9 Explain the cardiac cycle. **5**
- Q.10 What are different cell organelles? Explain any two in detail. **5**
- Q.11 Describe the physiology of vision. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - First Semester
NUTRITION FOR VULNERABLE AND SPECIAL GROUP (MND-103)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What are guiding principles used to derive RDA's? Explain the advantages and limitations of RDA's. **10**
- Q.2 Discuss the physiological changes occur during adolescent stage. How do psycho-social influences affect a food behaviour during adolescence? **10**
- Q.3 Describe the physiological and psychological changes associated with aging. What advise would you give a 65 year old person to add healthy years in his life? **10**
- Q.4 Why is special emphasis laid on nutrition during pregnancy? Discuss the problems encountered during pregnancy. **10**

PART-B

- Q.5 Explain the nutritional management during extreme climatic conditions. **5**
- Q.6 Discuss advantages of breast feeding for mother and child. **5**
- Q.7 Explain the principles and advantages of weaning. **5**
- Q.8 Discuss the importance of meal planning. **5**
- Q.9 What are the fundamental aspects of meal planning? **5**
- Q.10 Write the classification of nutrients on the basis of their functions. **5**
- Q.11 Explain the food groups and food pyramid. **5**

End Semester Examination, Dec. 2014

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

PEDAGOGY, ADMINISTRATION AND ETHICAL ISSUES IN NUTRITION AND DIETETICS (MND-104)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Describe different agencies of education and explain their importance in the life of a child. **10**
- Q.2 Why should the curriculum be frequently revised? Discuss some of the factors which should be considered in selecting material in formulating a curriculum. **10**
- Q.3 Discuss the taxonomy of educational objectives given by Bloom's and his associates. **10**
- Q.4 Define education. Explain by giving suitable examples need and importance of education. **10**

PART-B

- Q.5 "Education in a natural harmonious and progressive development of man's innate powers". Discuss. **5**
- Q.6 Enlist the key factors involved in an educational process. **5**
- Q.7 Describe demonstration method. Give its underlying principle. **5**
- Q.8 Explain Herbartian steps of a lesson plan. **5**
- Q.9 Write short notes on:
a) Projected and non-projected aids
b) Code of ethics **2½x2**
- Q.10 Enumerate the functions of nutrition and dietetics association. **5**
- Q.11 What is unit planning? State its importance. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - First Semester
FOOD SCIENCE AND NUTRITION (MND-105)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 How do you estimate BMR by calculation? Explain the various factors affecting BMR. **10**
- Q.2 Explain the various methods of improving nutritional quality of food in detail. **10**
- Q.3 Discuss principles and various methods of food preservation in detail. **10**
- Q.4 Explain structure, composition, nutritive value and culinary uses of cereals in detail. **10**

PART-B

- Q.5 Write a short note on nutritive value of milk and describe the role of milk and milk products in cookery. **5**
- Q.6 "Nutrition, immunity and infection are interrelated". Justify. **5**
- Q.7 Write a short note on biological methods of protein quality assessment. **5**
- Q.8 Explain principle of microwave cooking. Draw a diagram of microwave and label it. **5**
- Q.9 Discuss various causes of food spoilage in brief. **5**
- Q.10 Write a short note on dry method of cooking. **5**
- Q.11 Define:
a) Antioxidants
b) Energy balance **5**

End Semester Examination, Dec. 2014

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

FOOD MICROBIOLOGY (MND-201)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What are the various tests used to analyze the microbiology of water? Discuss any one in detail. **10**
- Q.2 Discuss the various intrinsic and extrinsic parameters of food that affects its microbial growth. **10**
- Q.3 Write in detail about the different forms of food borne animal parasites. **10**
- Q.4 What does fermentation mean? Discuss the apparent health benefits of fermented food products. **10**

PART-B

- Q.5 Name any five common water borne infectious diseases along with their causative organisms. **5**
- Q.6 Write a note on various indicators of food microbial quality and safety. **5**
- Q.7 Enumerate the various direct methods used to measure the microbial growth in food. **5**
- Q.8 What are various ways of preserving food? Explain any one technique of good preservation. **5**
- Q.9 Discuss the two different forms of fungi in brief. **5**
- Q.10 Write about the microbial spoilage of any food group. **5**
- Q.11 Write short notes on **any two**:
- a) Generation time
 - b) Synchronous batch
 - c) Continuous culture
- 2½x2**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Second Semester
INSTRUMENTATION FOR FOOD ANALYSIS (MND-202)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss briefly the principles and applications of gel electrophoresis. **10**
- Q.2 Discuss the ELISA method and its applications in detail. **10**
- Q.3 What do you understand by HPLC? **10**
- Q.4 What is the principle behind an atomic absorption spectrophotometry? **10**

PART-B

- Q.5 Write short notes on **any two**:
- a) Salt
 - b) Buffers
 - c) Bases
- 2½x2**
- Q.6 Write a short note on Henderson Hasselbalch equation. **5**
- Q.7 Write short notes on:
- a) Fluorometer
 - b) NMR
- 2½x2**
- Q.8 What are radioactive and stable isotopes? **5**
- Q.9 Describe the principle and instrumentation of a spectrophotometer. **5**
- Q.10 Solve the following equation indicating acid, bases, conjugate acid and conjugate base:
- a) $CH_3COOH(aq) + H_2O(l) \rightleftharpoons H_3O^+(aq) + CH_3COO^-(aq)$
 - b) $AL(OH)_3 + 3HCL \rightarrow ALCL_3 + 3H_2O$
 - c) $Ba(OH)_2 + 2HC_2H_3O_2 \rightarrow Ba(C_2H_3O_2)_2 + 2H_2O$
 - d) $2KOH + H_2SO_4 \rightarrow K_2SO_4 + 2H_2O$
 - e) $NH_3 + H_2O \rightarrow NH_4^+ + OH^-$
- 1x5**
- Q.11 What is the concept of BMR and describe the Harris Benedict equation? **5**

End Semester Examination, Dec. 2014

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

CLINICAL NUTRITION (MND-203)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss in detail the pathophysiology and medical nutrition therapy for cirrhosis. **10**
- Q.2 What is type-II diabetes mellitus? Suggest suitable dietary modification for a patient suffering from type-II diabetes. **10**
- Q.3 'Diet therapy plays a crucial role in chronic renal failure'. Discuss. **10**
- Q.4 Discuss in detail the nutrition care process. **10**

PART-B

- Q.5 Differentiate between compensated and decompensated heart disease. **5**
- Q.6 Enumerate the points of MNT for **(any two)**:
a) Myocardial infarction
b) Constipation
c) Hemorrhoids **2½x2**
- Q.7 Write a short note on bolus feed. **5**
- Q.8 'Parenteral nutrition plays a significant role in the recovery of the patient'. Justify. **5**
- Q.9 Briefly discuss diet management for obese. **5**
- Q.10 Discuss the symptoms and dietary management for anaemia. **5**
- Q.11 Discuss the pathophysiology, causes and dietary modification for tuberculosis. **5**

End Semester Examination, Dec. 2014

M. Sc. (N & D) - Second Semester SPORTS NUTRITION (MND-204)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What is anorexia nervosa? Explain its symptoms, with physical and medical consequences. **10**
- Q.2 Discuss the role of various vitamins in exercise performance. **10**
- Q.3 Explain the effect of diet and exercise on body composition during weight loss. **10**
- Q.4 Explain carbohydrate and fat as major macronutrients for the physically active individuals. **10**

PART-B

Write short notes on:

- Q.5 Recommended ORS for heavy training and competition. **5**
- Q.6 Sports drinks. **5**
- Q.7 Estimation of body fat among athletic groups. **5**
- Q.8 Role of minerals in exercise performance. **5**
- Q.9 Pre competition meal. **5**
- Q.10 Physical activity as an important factor in weight control. **5**
- Q.11 Bulimia nervosa. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Second Semester
STATISTICS AND RESEARCH METHODOLOGY (MND-205)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 a) What do you mean by research? Explain its significance in modern times. **5x2**
b) Distinguish between research methods and research methodology.
- Q.2 Explain the meaning of following in context of a research design. **2x5**
a) Extraneous variable.
b) Confounded relationship.
c) Research hypothesis.
d) Experimental and control group.
e) Treatments.
- Q.3 What is a research problem? Define the main issues which should receive the attention of researcher in formulating the research problem. Give suitable examples to elucidate your points. **10**
- Q.4 Find out mean, median and standard deviation of the following data: **10**
8 10 12 14 16 18 20 22 24 26

PART-B

- Q.5 Discuss interview as a technique of data collection. **5**
- Q.6 Write a short note on "experience survey". Also explain its utility in exploratory research studies. **5**
- Q.7 Calculate mode of the following series: **5**
- | | | | | | | |
|-----------------|-----|------|-------|-------|-------|-------|
| Class Interval: | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 |
| Frequency: | 20 | 24 | 32 | 28 | 20 | 26 |
- Q.8 Define a research problem. Give three examples to illustrate your answer. **5**
- Q.9 "Creative management, whether in public administration or private industry, depends on methods of inquiry that maintain objectivity, clarity, accuracy and consistency". Discuss this statement and examine the significance of research. **5**
- Q.10 Following is the monthly income of eight families in a locality:
Monthly Income (₹) = 70, 10, 500, 73, 13, 250, 8, 42
Find out arithmetic mean using direct method and short-cut method. **5**
- Q.11 Write short notes on: **2½x2**
a) Motivation in research.
b) Objectives of research.

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Third Semester
FOOD SCIENCE AND PROCESSING (MNF-301)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What is the role of cereals and pulses in cookery? Give examples. **10**
- Q.2 Describe the structure, composition and nutritive value of vegetables and fruits. **10**
- Q.3 Discuss the different types of methods involved in sensory evaluation. **10**
- Q.4 Define the following with examples:
a) Crystallization
b) Gelatinization
c) Rigor mortis
d) Rancidity
e) Germination **2x5**

PART-B

- Q.5 What are the different toxic constituents present in pulses? **5**
- Q.6 Discuss the processing of tea. **5**
- Q.7 Discuss any two common unit operations. **5**
- Q.8 What are the food related hazards? **5**
- Q.9 Explain the principle of HACCP in detail. **5**
- Q.10 Give the methods employed for evaluating egg quality. **5**
- Q.11 Describe the steps followed in prevention of enzymatic browning. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Third Semester
FOOD SAFETY AND QUALITY CONTROL (MNF-302)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Write short notes on:
a) Chelating agents
b) Colouring agents **5x2**
- Q.2 Write a detailed note on food laws and acts. **10**
- Q.3 Discuss the advantages and disadvantages of sensory and objective evaluation. **10**
- Q.4 Discuss food quality assurance in detail. **10**

PART-B

- Q.5 What are the requirements for effective food packaging? **5**
- Q.6 What instruments would you use to test a) Dhokla b) Chapati? Also explain principle of instruments. **5**
- Q.7 What is role of emulsifiers in food? Give two examples where emulsifiers are used. **5**
- Q.8 Write short note on:
a) Lathyrus
b) Hemagglutinins **2½x2**
- Q.9 Describe the role of 'AGMARK' in maintaining standards of food. **5**
- Q.10 What is hedonic scale? Give two circumstances in which it can be used. **5**
- Q.11 Write a short note on taste panels. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Third Semester
FOOD PRODUCT DEVELOPMENT AND MARKETING (MNF-303)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Write in detail about new products in food science and food ingredient industry. **10**
- Q.2 Discuss classification along with characterization of new food product development in detail. **10**
- Q.3 Explain idea generation in detail and also enlist the different sources of ideas. **10**
- Q.4 Bring out the importance of sensory evaluation in the screening procedure for a new product. **10**

PART-B

- Q.5 Discuss corporate and governmental influences in relation to a new food product development in brief. **5**
- Q.6 Write a short note on packaging and design graphics in a food product development. **5**
- Q.7 Write a short note on entrepreneurship. **5**
- Q.8 Discuss any two case studies related to new food product development. **5**
- Q.9 Explain product life cycle. **5**
- Q.10 Write a note on any two food stabilizing systems. **5**
- Q.11 Discuss food safety in brief. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Fourth Semester
ADVANCED FOOD SCIENCE AND CHEMISTRY (MNF-401)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- | | | |
|-----|--|-----------|
| Q.1 | Discuss the methods of freezing in detail. | 10 |
| Q.2 | Discuss the properties of amylose and amylopectin. | 10 |
| Q.3 | Discuss various methods of flavour analysis. | 10 |
| Q.4 | Explain the harvesting and processing of tea. | 10 |

PART-B

Write short notes on:

- | | | |
|------|---|-------------|
| Q.5 | Structure of water. | 5 |
| Q.6 | Structure of proteins. | 5 |
| Q.7 | Protein hydrosylate. | 5 |
| Q.8 | Use of following in food:
a) Guar gum.
b) Pectin. | 2½x2 |
| Q.9 | Natural and synthetic flavours. | 5 |
| Q.10 | Protein isolate. | 5 |
| Q.11 | Problems of chemical residues in food. | 5 |

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Fourth Semester
ADVANCED FOOD PROCESSING AND TECHNOLOGY (MNF-402)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 a) Write a note on enrichment.
b) Write a note on fermented vegetables. **5x2**
- Q.2 Write short notes on:
a) Fat replacers.
b) Antioxidants. **5x2**
- Q.3 a) Explain the procedure of ripening of cheese in detail.
b) Write a note on processing of ice-cream. **5x2**
- Q.4 Explain the milling process of wheat in detail. **10**

PART-B

- Q.5 Write a note on: "acids as an additives in food products". **5**
- Q.6 Discuss the role of yeast in fermentation process. **5**
- Q.7 Discuss various components of functional foods and their roles in various health benefits. **5**
- Q.8 Discuss various changes which occur during freezing of food products. **5**
- Q.9 Write a note on storage and preservation of meat and meat products. **5**
- Q.10 Discuss "pasteurization of milk" in detail. **5**
- Q.11 Write notes on:
a) Stabilizers and thickeners.
b) Sweetners. **2½x2**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Fourth Semester
MICROBIOLOGY OF FOOD PROCESSING (MNF-403)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss the various methods employed to examine the microbiological aspects of food. **10**
- Q.2 Explain the various steps involved in food borne disease outbreak survey. **10**
- Q.3 Discuss the role of any four food control agencies in brief. **2½x4**
- Q.4 Enumerate and discuss the various food control points that needs consideration in a food plant. **10**

PART-B

- Q.5 State the various merits and demerits of heat Sterilization. **5**
- Q.6 Discuss the preservation of milk and milk products in brief. **5**
- Q.7 Enumerate different types of drying. Discuss any one type of drying in short. **5**
- Q.8 What are various food additives used in a food industry. **5**
- Q.9 Name any five common water borne infectious diseases. **5**
- Q.10 State any five essential historical developments in food microbiology. **5**
- Q.11 Write short notes on **any two**:
- a) Polymerase chain reaction.
 - b) Immunoassay.
 - c) Flow cytometry.
- 2½x2**

End Semester Examination, Dec. 2014

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

EXERCISE PHYSIOLOGY (MNS-301)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What are the principles of a physical training? **10**
- Q.2 What are the responses and adaptation to exercise in the immune system? **10**
- Q.3 How does the body respond during exercise in hot and cold environment? **10**
- Q.4 Explain Harvard step test. **10**

PART-B

- Q.5 Define the following:
a) Exercise physiology.
b) Endurance.
c) Lactate threshold.
d) Maximal O₂ consumption.
e) Strength. **5**
- Q.6 How does a physical training affects cardiovascular system? **5**
- Q.7 What are the mechanisms for the thermal regulation? **5**
- Q.8 Explain the concept of physical activity health and aging. **5**
- Q.9 Write down the methods for the measurement of maximal O₂ consumption. **5**
- Q.10 Describe pulmonary functions during exercise. **5**
- Q.11 Justify the relationship between sports and nutrition. **5**

End Semester Examination, Dec. 2014

M. Sc. (N & D) – Third Semester

SPORTS BIOCHEMISTRY (MNS-302)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 'Protein metabolism involves complex steps'. Justify the statement. **10**
- Q.2 Discuss the factors responsible for thermoregulation. **10**
- Q.3 Explain the role of pre and post hydration status in sports. **10**
- Q.4 Define hormones. Discuss the classification and mode of action of hormones. **10**

PART-B

- Q.5 Give the structure for the following:
a) Oleic acid.
b) Lactox. **5**
- Q.6 Write a short note on growth hormone and its performance. **5**
- Q.7 Discuss the mechanism of fatigue during exercise. **5**
- Q.8 'Glycogen serves as a main metabolic fuel in a high intensity exercise' Justify. **5**
- Q.9 Define and classify proteins. **5**
- Q.10 Write a short note on nutritional status and its effects on training. **5**
- Q.11 Explain how plasma ADH concentration changes during exercise? Also discuss the role of rehydration in exercise. **5**

End Semester Examination, Dec. 2014
M. Sc. (N & D) - Third Semester
NUTRITION ESSENTIALS OF SPORTS (MNS-303)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss the role of water soluble vitamins for sportspersons. **10**
- Q.2 Explain the pathophysiology of anorexia nervosa in detail. **10**
- Q.3 Discuss in detail the following ergogenic aids:
a) Pharmacological agents.
b) Hormonal agents. **10**
- Q.4 What is the importance of environmental factors for exercise testing and prescription? **10**

PART-B

Write short notes on:

- Q.5 Psychological features of anorexia nervosa. **5**
- Q.6 Biological role of fat soluble vitamins. **5**
- Q.7 General principles of exercise prescription. **5**
- Q.8 Exercise prescription considerations for diabetes. **5**
- Q.9 Energy bars as sports food. **5**
- Q.10 Bicarbonate loading. **5**
- Q.11 Haemoglobin and oxygen transport. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy - First Semester
BIostatistics and Research Methodology (MPB-103)

Time: 3 hrs

Max Marks: **60**

No. of pages: 2

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain critical analysis of a research paper. **10**
- Q.2 What do you understand by quantitative research design? Describe the studies included in the same. **10**
- Q.3 Determine mean, median and mode from the following data:

Wt. in lbs	No. of persons
100-110	4
110-120	6
120-130	20
130-140	32
140-150	33
150-160	17
160-170	8
170-180	2
Total	122

10

- Q.4 What do you understand by regression? The following table shows the ages (x) and blood pressure (y) of 8 persons:

X:	52	63	45	36	72	65	47	25
Y:	62	53	51	25	79	43	60	33

Obtain the regression equation of y on x and find the expected blood pressure of a person who is 40 years old. **10**

PART-B

- Q.5 Write a short note on levels of measurement. **5**
- Q.6 Define hypothesis. Discuss its importance. **5**
- Q.7 What do you understand by normal distribution? **5**
- Q.8 Describe the types of internal validity of an instrument. **5**
- Q.9 Discuss any 5 ethical principles of a research study design. **5**
- Q.10 Discuss various ways of representation of data. **5**

Q.11 Define non-parametric tests. From the data given below about the treatment of 250 patients suffering from a disease, state whether the new treatment is superior to the conventional treatment:

Treatment	No. of patients		
	Favourable	Not favourable	Total
New	140	30	170
Conventional	60	20	80
Total=	200	50	250

(For degrees of freedom=1, $\alpha^2_{0.05} = 3.84$)

5

Q.12 Which organization is more equitable in regards to wages?

	Org.A	Org.B
No. of workers	50	60
Average wage	Rs. 60	Rs. 48
Variance	100	144

5

End Semester Examination, Dec. 2014
Master of Physiotherapy (Cardiopulmonary) - First Semester
FUNDAMENTAL AND BIOMECHANICS IN CARDIOPULMONARY
(MPC-101)

Time: 3 hrs

Max Marks: **60**

No. of pages: *1*

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 A 52 year old male is admitted to the hospital in ICU with diagnosis of pneumonia with a chronic bronchitis. Explain body positioning for this patient for preventing ICU complications. Also explain the rationale for its use. **10**
- Q.2 Explain the control of respiration. Add a short note on muscles of respiration. **10**
- Q.3 Explain the pressure and volume changes during a cardiac cycle. Draw the normal ECG. **10**
- Q.4 Explain the regulation of heart rate. Explain how various drugs affect the heart rate. **10**

PART-B

- Q.5 Explain the indications of oxygen therapy. **5**
- Q.6 Explain the lower respiratory tract anatomical and physiological aspects. **5**
- Q.7 Explain the circulation of blood. **5**
- Q.8 Describe the effects of exercise on oxygen transport. **5**
- Q.9 Explain the importance of humidification in clinical practice. **5**
- Q.10 Explain the process of respiration. How does positioning affect the diaphragmatic excursion? **5**
- Q.11 Explain the rheological properties of blood. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Cardiopulmonary) - Fourth Semester
EXERCISE PHYSIOLOGY AND EXERCISE PRESCRIPTION IN
CARDIOPULMONARY (MPC-401)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain the physiological basis for changes in the cardiovascular system as a result of 6 weeks exercise training program. **10**
- Q.2 Explain the importance of pulmonary rehabilitation in physiotherapy. Add a note on energy conservation techniques. **10**
- Q.3 Write the recent update of American college of sports medicine on exercise prescription for diabetic population. **10**
- Q.4 Explain stress testing. Explain the changes significantly observed in patients with heart diseases. **10**

PART-B

- Q.5 Explain the hormonal regulation of fluid and electrolytes during exercise. **5**
- Q.6 Write a note on the immediate effects of exercise on the body. **5**
- Q.7 Explain the guidelines for exercise prescription for pregnant females. **5**
- Q.8 Explain the role of pulmonary rehabilitation in obstructive disorders. **5**
- Q.9 Write a short note on the various investigations for assessment of cardiopulmonary disorders. **5**
- Q.10 Explain the "FITT" principle. **5**
- Q.11 Describe the role of metabolic equivalent in cardiac rehabilitation. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Third Semester
INTERDISCIPLINARY LEARNING (MPL-302)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail the analysis and survey plan before opening a physiotherapy clinic. **10**
- Q.2 Mention a detailed account of how to prepare for an interview for first timers. **10**
- Q.3 Describe the different agencies of education and explain their importance in the life of the child. **10**
- Q.4 Enumerate important methods of teaching. Give a detailed view of any one method of your choice giving its merits and limitations. **10**

PART-B

- Q.5 Define budget. Briefly explain its types. **5**
- Q.6 Explain giving suitable examples sentinel event reporting. **5**
- Q.7 Write short notes on:
a) Confidentiality
b) Professional conduct of physiotherapy practice. **2½x2**
- Q.8 Explain the principles and concepts of guidance and counseling. **5**
- Q.9 Point out factors affecting curriculum development. **5**
- Q.10 Discuss some of the factors to be kept in mind while planning lesson. **5**
- Q.11 Describe demonstration method. Give its underlying principles. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy - Third Semester
INTERDISCIPLINARY LEARNING (MPL-302)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Elaborate the importance of medical records. What are the various methods of maintaining it? **10**
- Q.2 What is performance appraisal? Discuss the various methods of performance appraisal adopted by an organization. **10**
- Q.3 What do you mean by lecture method of teaching physiotherapy. Enumerate its advantages and disadvantages. **10**
- Q.4 What are teaching aids? List various principles of selecting teaching aids. **10**

PART-B

- Q.5 Write a short note on health care marketing. **5**
- Q.6 List advantages and disadvantages of third party administrative health care services. **5**
- Q.7 Differentiate between formal and informal agencies of education. **5**
- Q.8 What is educational psychology? What is its scope? **5**
- Q.9 Enumerate the factors affecting a curriculum development. **5**
- Q.10 Explain necessary steps of a lesson planning. **5**
- Q.11 Explain with suitable examples how guidance is different from counseling. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Musculoskeletal) - First Semester
FUNDAMENTALS AND BIOMECHANICS IN MUSCULOSKELETAL
(MPM-101)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Describe sagittal plane analysis of a gait with emphasis on ground reaction force vector. **10**
- Q.2 Classify mechanoreceptors. Describe the role of each of them and their mechanism of action. **10**
- Q.3 Define job design. Describe the physiological and biomechanical risk factors for INRMSD. **10**
- Q.4 Differentiate between mobilization and manipulation. Discuss various grades of mobilisation with diagrams. **10**

PART-B

- Q.5 Discuss different types of mobility aids. **5**
- Q.6 Write a short note on aquatic therapy. **5**
- Q.7 Explain pain sensitization. **5**
- Q.8 Differentiate between Oxford and DeLorme strengthening protocols. **5**
- Q.9 Explain the muscle length testing of SCM and pectoralis major. **5**
- Q.10 Describe following gaits briefly:
a) Equinus gait
b) Lurching gait **5**
- Q.11 Describe force-velocity relationship with a diagram. **5**
- Q.12 Discuss the hierarchy in manual therapy. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Musculoskeletal) - Second Semester
EVALUATION AND DIAGNOSIS IN MUSCULOSKELETAL (MPM-201)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 How do you manage the stump after above knee amputation? What measures should be taken to prevent the complication? **10**
- Q.2 Describe the isokinetic exerciser in detail. What is its role in rehabilitation? **10**
- Q.3 Write down sacroiliac dysfunctions along with mobilization accordingly. **10**
- Q.4 Write down about metabolic disorders of joint. **10**

PART-B

- Q.5 Explain physical disability evaluation of lower limb dysfunctions. **5**
- Q.6 Describe radio-diagnosis of retro-listhesis. **5**
- Q.7 Write a short note on motor unit action potential. **5**
- Q.8 Describe the locking dysfunction of temporomandibular joint. **5**
- Q.9 What is the role of Biofeedback in rehabilitation? **5**
- Q.10 Describe NCV in brief. **5**
- Q.11 Describe burns and its types. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Musculoskeletal) - Second Semester
PHYSIOTHERAPY IN MUSCULOSKELETAL (MPM-202)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Describe the biomechanical principles of manual therapy. **10**
- Q.2 Explain the physiological aspects of ageing and PT management thereof. **10**
- Q.3 Describe the local complications of fracture and PT management in each of them. **10**
- Q.4 Discuss the surgical principles of amputation. How is stump oedema controlled? **10**

PART-B

- Q.5 Describe the pathophysiology and PT management for coxa valga. **5**
- Q.6 A 23-yr old female complains of localized anterior knee pain which is increased by walking, running or even sitting for a long time. Diagnose and manage. **5**
- Q.7 Explain sacral torsion dysfunction. **5**
- Q.8 Discuss the strengthening protocol for dynamic stabilizers of the shoulder. **5**
- Q.9 Discuss the PT management for PIVD. **5**
- Q.10 How does PT treatment for OA differ from that for RA? **5**
- Q.11 Write a short note on RSD. **5**
- Q.12 Describe the PT management for TB spine. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Musculoskeletal) - Third Semester
ADVANCED THERAPEUTICS IN MUSCULOSKELETAL (MPM-301)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail about the Maitland principles of joint mobilization with suitable examples. **10**
- Q.2 Describe in detail about cyriax principles with examples. **10**
- Q.3 Explain the principles of muscle energy technique in detail along with in variation with other stretching and strengthening techniques. **10**
- Q.4 Explain neurophysiological principle given by Butler with suitable examples. **10**

PART-B

- Q.5 Write difference between SNAG and NAG for C₆-C₇ region. **5**
- Q.6 What are the advantages and disadvantages of active wheelchair? **5**
- Q.7 Explain in brief about the physiology of formation of trigger point. **5**
- Q.8 Explain mullighan mobilization technique for cervicogenic headache. **5**
- Q.9 What is lover crossed syndrome? **5**
- Q.10 Explain SCS technique. **5**
- Q.11 Give advantages and disadvantages of laser? **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Musculoskeletal) - Fourth Semester
**EXERCISE PHYSIOLOGY AND EXERCISE PRESCRIPTION IN
MUSCULOSKELETAL (MPM-401)**

Time: 3 hrs

Max Marks: **60**

No. of pages: *1*

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What are cardio-respiratory responses to four weeks dynamic exercise? **10**
- Q.2 What is the importance of anaerobic energy system in improving performance of an individual? **10**
- Q.3 What are the factors important before prescribing any exercises? Explain the guidelines. **10**
- Q.4 What is the role of physical activity in prevention of osteoporosis? **10**

PART-B

- Q.5 Explain the effect of strength training. **5**
- Q.6 Write down the relationship between bone mass and physical activity. **5**
- Q.7 Explain exercise prescription in prevention of low back pain. **5**
- Q.8 Write a short note on oxygen debt. **5**
- Q.9 What is the role of exercise in prevention of osteoarthritis? **5**
- Q.10 Explain force-velocity relationship. **5**
- Q.11 Explain the role of VO_2 reserve in exercise prescription. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Neurology) - First Semester
FUNDAMENTALS AND BIOMECHANICS IN NEUROLOGY
(MPN-101)

Time: 3 hrs

Max Marks: **60**

No. of pages: *1*

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What is pain? Explain the usage of TENs in pain management in the light of EBP. **10**
- Q.2 What is motor learning? Explain the theories of motor learning. **10**
- Q.3 Highlight the role of environmental assessment in prescribing ergonomic care. **10**
- Q.4 Briefly explain vestibular system and its role in the maintenance of balance. **10**

PART-B

- Q.5 Explain the physiology of spasticity. **5**
- Q.6 What is a motor skill? Briefly explain the classification of motor skills. **5**
- Q.7 Highlight the role of fatigue in relation to workplace mishaps. **5**
- Q.8 Explain the therapeutic application of EMG. **5**
- Q.9 Enumerate the advantages of isometric exercises over isotonic exercises. **5**
- Q.10 Explain the circulation of blood in brain with a diagram. **5**
- Q.11 Differentiate between running and walking. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Neurology) - Second Semester
EVALUATION AND DIAGNOSIS IN NEUROLOGY (MPN-201)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail the assessment of cardinal features of Idiopathic Parkinsonism. **10**
- Q.2 Critically analyze the functional evaluation of 56-years-old patient having right sided Hemiplegia. **10**
- Q.3 A 48-years-old male develops difficulty in speech and comprehension following a head injury. Evaluate the case in detail. **10**
- Q.4 Highlight the importance of examination of balance in a neurologically ill patient. Explain the tools available for the assessment of dynamic balance. Explain the procedure for assessment. **10**

PART-B

- Q.5 Briefly explain the scissoring gait and its evaluation. **5**
- Q.6 Explain the advantages and disadvantages of CT and MRI usage in patients. **5**
- Q.7 What is the importance of examination of vital functions in patients? How are they evaluated? **5**
- Q.8 Critically analyze the examination of limb length discrepancy. **5**
- Q.9 Explain SLUMP test and its variations for evaluation of neural integrity. **5**
- Q.10 Briefly assess the C₅ spinal cord injured patient. **5**
- Q.11 Explain the examination of superficial sensation. **5**
- Q.12 Write a short note on NCV as part of neural assessment. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Neurology) - Second Semester
PHYSIOTHERAPY IN NEUROLOGY (MPN-202)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Write in detail types of spinal cord injury and physiotherapy management of C₆ spinal cord injury. **10**
- Q.2 Write in detail disorders of vestibular system and its management. **10**
- Q.3 Write in detail physiotherapy management of a child diagnosed with diplegic C.P. **10**
- Q.4 Write in detail physiotherapy management of a patient diagnosed with poliomyelitis. **10**

PART-B

- Q.5 Describe various coma stimulation techniques. **5**
- Q.6 Explain briefly gait training in Parkinson's disease. **5**
- Q.7 Explain various gaze stabilization exercises. **5**
- Q.8 Explain various spasticity reduction techniques. **5**
- Q.9 Explain reflex sympathetic dystrophy along its management. **5**
- Q.10 Write a note on tremors along its management. **5**
- Q.11 Write a note on nutritional disorders. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Neurology) - Third Semester
ADVANCED THERAPEUTICS IN NEUROLOGY (MPN-301)

Time: 3 hrs

Max Marks: **60**

No. of pages: *1*

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain the effect of buoyancy on human body and its role in rehabilitation. **10**
- Q.2 How will you apply techniques of facilitation of PNF in treating a hemiplegic patient? **10**
- Q.3 Explain various principles of motor relearning program. **10**
- Q.4 Explain principles of NDT. **10**

PART-B

- Q.5 Explain Bad Ragaz method of hydrotherapy. **5**
- Q.6 Explain hold relax technique of PNF. **5**
- Q.7 Explain SLR and its modification. **5**
- Q.8 Explain stages of recovery of brunstrom. **5**
- Q.9 Explain various inhibitory techniques of Rood's approach. **5**
- Q.10 Explain the role of biofeedback in rehabilitation. **5**
- Q.11 Explain upper limb patterns of PNF. **5**
- Q.12 Explain positioning in acute stage of a stroke patient. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Neurology) - Fourth Semester
EXERCISE PHYSIOLOGY (MPN-401)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail cardiovascular adaptations to various exercise. **10**
- Q.2 Explain in detail general principles of exercise prescription. **10**
- Q.3 Write in detail effects of exercise on various hormones in the body. **10**
- Q.4 Critically analyze the effects of various types of endurance training in healthy individual. **10**

PART-B

- Q.5 Explain regulation of respiration during exercise. **5**
- Q.6 Explain neural adaptation with exercise. **5**
- Q.7 Write a short note on VO_2 max. **5**
- Q.8 Write a short note on exercise prescription in diabetes mellitus. **5**
- Q.9 Write a note on exercise prescription in obesity. **5**
- Q.10 Write importance of aging for exercise testing and prescription. **5**
- Q.11 How does environmental factors influence exercise performance? **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Sports) - First Semester
FUNDAMENTALS OF BIOMECHANICS IN SPORTS (MPS-101)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail with the help of a labeled diagram the biomechanics of throwing. **10**
- Q.2 Define biomechanics. Discuss the uses of biomechanics in the field of sports physiotherapy. **10**
- Q.3 Explain in detail using well labeled diagrams the joint anatomy of biomechanics of knee joint. **10**
- Q.4 Discuss the various theories of pain in detail. **10**

PART-B

- Q.5 Differentiate between active and passive insufficiency. **5**
- Q.6 Write down the principles of plyometric exercises. **5**
- Q.7 Differentiate between walking and running on the basis different phases of GAIT. **5**
- Q.8 Define rehabilitation. Write down the goals and objectives of rehabilitation in sports. **5**
- Q.9 Write down the various grades of Maitland mobilization. **5**
- Q.10 Discuss the various eating disorders with emphasis on etiology and complications of them. **5**
- Q.11 What are various stress management techniques? **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Sports) - Second Semester
EVALUATION AND DIAGNOSIS IN SPORTS (MPS-201)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Define pre-participation evaluation and explain its procedure in detail. **10**
- Q.2 Explain in detail the mechanism of shoulder dislocation and the special test to identify it. **10**
- Q.3 Explain the mechanism of injury of anterior cruciate ligament. Write about the special test to identify it. **10**
- Q.4 How will you test lightness for?
a) Pectorals major
b) Gastrocnemius and soleus **5x2**

PART-B

- Q.5 Explain speed test. **5**
- Q.6 Discuss the importance of CT scan as a diagnostic tool. **5**
- Q.7 Explain Finkelstein test. **5**
- Q.8 Describe neural tension test for radial nerve. **5**
- Q.9 Describe the mechanism of injury for calcaneofibular ligament and its management. **5**
- Q.10 Describe Thomas test. **5**
- Q.11 Describe the procedure for Beep test. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Sports) - Second Semester
PHYSIOTHERAPY IN SPORTS (MPS-202)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss the patho-etiology of lateral epicondylitis. Write the rehabilitation protocol for the same. **10**
- Q.2 Explain in detail the three principles of segmental stabilization. **10**
- Q.3 Write the various contraindications for heat therapy and cryotherapy in detail and why? **10**
- Q.4 Discuss the diabetic athlete in detail. **10**

PART-B

- Q.5 What are different mechanical devices used in sports massage and what are their uses? **5**
- Q.6 Why flexibility exercises are important in warm up and cool down phases. **5**
- Q.7 Write down the principles on which plyometric exercises are based and salient features of plyometric exercise. **5**
- Q.8 What do you understand by runner's high? **5**
- Q.9 Write a note on eating disorders. **5**
- Q.10 Discuss principles of taping. **5**
- Q.11 What is blood doping? How it is done? What are the disadvantages of it? **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Sports) - Third Semester
ADVANCED THERAPEUTICS IN SPORTS (MPS-301)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Define somatotyping. Explain Heath – Carter method of somatotyping. **10**
- Q.2 Write the advantages and disadvantages of isokinetic evaluation and rehabilitation in sports. **10**
- Q.3 Discuss the offensive and defensive techniques of football. **10**
- Q.4 Enumerate the various methods of body composition. Explain the importance of bio-electrical impedance analysis. **10**

PART-B

- Q.5 Write the principles of mulligan techniques. **5**
- Q.6 Explain the importance of neural mobilization. **5**
- Q.7 Write the different shooting techniques used in basket ball. **5**
- Q.8 Write the use of force platform in sports training and rehabilitation. **5**
- Q.9 Explain the importance of *kinanthropometry* knowledge in sports medicine. **5**
- Q.10 Write a note on phantom stratagem. **5**
- Q.11 Explain the role of E.M.G. in rehabilitation. **5**
- Q.12 Write the clinical importance of body fat analysis by skin fold caliper. **5**

End Semester Examination, Dec. 2014
Master of Physiotherapy (Sports) - Fourth Semester
EXERCISE PHYSIOLOGY AND EXERCISE PRESCRIPTION IN SPORTS
(MPS-401)

Time: 3 hrs

Max Marks: **60**

No. of pages: *1*

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain the role of anaerobic energy system on performance. **10**
- Q.2 Discuss the cardio-vascular adaptation due to resistance training. **10**
- Q.3 Explain the hormonal regulation of fluid and electrolytes during exercise. **10**
- Q.4 Discuss the physiological changes with ageing and role of exercise for geriatric population. **10**

PART-B

- Q.5 Explain exercise induced asthma. **5**
- Q.6 Explain the mechanism for the development of hypertrophy due to the exercise training. **5**
- Q.7 Discuss the advantages and disadvantages of carbohydrate loading. **5**
- Q.8 Explain Runner's high. **5**
- Q.9 Explain the principles of exercise prescription. **5**
- Q.10 Write the effect of exercise on GIT system. **5**
- Q.11 Explain the Nutrition fatigue. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - First Semester
ANATOMY-I (PT-101)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Describe brachial plexus along with its roots, trunks, cords and branches along with labeled diagrams and clinical anatomy. **10**
- Q.2 Classify in detail the bones of human body with examples. **10**
- Q.3 Describe the structure of heart with chambers, covering, surfaces, borders and its clinical anatomy with labeled diagrams. **10**
- Q.4 Explain in detail the knee joint with special emphasis on locking and unlocking. **10**

PART-B

- Q.5 Describe osteology of scapula. **5**
- Q.6 Describe S||N typical thoracic vertebral. **5**
- Q.7 Describe vertebral column and intervertebral disc. **5**
- Q.8 Write a short note on femoral canal and femoral hernia. **5**
- Q.9 Write a short note on Arches of foot. **5**
- Q.10 Describe bronchopulmonary segment with its clinical anatomy. **5**
- Q.11 Describe popliteal fossa with labeled diagrams. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - First Semester
PHYSIOLOGY-I (PT-102)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Describe the structure and functions of a cell membrane. **10**
- Q.2 Describe the structure of a skeletal muscle. Add a note on sarcotubular system. **10**
- Q.3 Give classification, structure and functions of white blood cells. **10**
- Q.4 Define blood pressure. What are its components? Write short term regulation of blood pressure. **10**

PART-B

- Q.5 Describe innervations of GIT. **5**
- Q.6 Write a note on ECG. **5**
- Q.7 Discuss mountain sickness. **5**
- Q.8 Explain stages of deglutition. **5**
- Q.9 Describe mechanism of coagulation of blood. **5**
- Q.10 Discuss properties of skeletal muscle contraction. **5**
- Q.11 With the help of a labeled diagram explain the structure of a synapse. **5**
- Q.12 Describe structure and functions of endoplasmic reticulum. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - First Semester
BIOCHEMISTRY (PT-103)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What are different types of enzyme inhibition? Explain with examples. **10**
- Q.2 Explain HMP cycle and its significance. **10**
- Q.3 Briefly explain the kidney function tests. **10**
- Q.4 What are phospholipids? Classify them with suitable examples. Also write its functions. **10**

PART-B

- Q.5 What is gout? How is it treated? **5**
- Q.6 Describe sources, functions and deficiency diseases of Vitamin-D. **5**
- Q.7 What are immunoglobulins? Explain the structure of Ig. **5**
- Q.8 Give significance of essential amino acids and dietary fibers in the body. **5**
- Q.9 What is normal pH of blood? Name the important buffer systems in the body and also describe their roles. **5**
- Q.10 Write the steps of citric acid cycle. What is the biological significance of this cycle? **5**
- Q.11 Explain the factors affecting velocity of an enzyme reaction. **5**
- Q.12 Explain BMR, its importance and factors which affect BMR? **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - First Semester
FUNDAMENTALS OF PHYSIOTHERAPY (PT-104)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Define equilibrium. Classify equilibrium and describe the factors affecting equilibrium. **10**
- Q.2 What is lever? Classify different types of levers with examples and physiotherapeutic relevance. **10**
- Q.3 What is kinematics? Write about location magnitude, direction and type of motion with its diagrammatic representation. **10**
- Q.4 Describe and classify axis and planes in anatomic position of human body. Write about the movement occurring along these axis and planes. **10**

PART-B

- Q.5 Describe about thermal agents. **5**
- Q.6 Define and classify electromagnetic spectrum. **5**
- Q.7 Give details about resistance in series and parallel. **5**
- Q.8 Explain clinical implication of electric current in physiotherapy practice. **5**
- Q.9 Explain muscle work and group action. **5**
- Q.10 What is electric shock? Write about the first aid management of electric shock. **5**
- Q.11 Write about different force and force system. **5**
- Q.12 Classify and describe motion. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - First Semester
SOCIOLOGY (PT-105)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail relationship of sociology with other sciences. **10**
- Q.2 How does social planning helps in the improvement of health and rehabilitation? **10**
- Q.3 Define family. Mention various types of family and comment on familial influence on shaping an individual's behavior. **10**
- Q.4 Elaborate on various methods of studying sociology. **10**

PART-B

- Q.5 What is work in sociological context? How does it impact the health of an individual? **5**
- Q.6 Comment on importance of sociology to health care professionals. **5**
- Q.7 What is socialization? Comment on primary, secondary and anticipatory socialization. **5**
- Q.8 Outline the health hazards of rural communities. **5**
- Q.9 Briefly describe conceptual and methodological leisure. **5**
- Q.10 Write a short note on medical social worker. **5**
- Q.11 Outline the intricacies of women and work. **5**
- Q.12 How social change, changes the dynamics of health programme? **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Second Semester
ANATOMY–II (PT-201)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Describe anatomy of stomach under following head:
a) Parts, surfaces and borders
b) Blood supply **5x2**
- Q.2 Describe in short:
a) Arch of Aorta
b) Coronary sinus **5x2**
- Q.3 Describe gross anatomical features of cerebrum. **10**
- Q.4 Enumerate:
a) Lobes of cerebral hemispheres. **5**
b) Important Sulci and Gyri of cerebrum. **5**

PART-B

- Q.5 Write short notes on:
a) Nephron **2**
b) Urogenital diaphragm **3**
- Q.6 Describe blood supply of brain in short. **5**
- Q.7 Describe pituitary gland in short. **5**
- Q.8 Enumerate:
a) Parts of brain **2**
b) Parts of large intestine **3**
- Q.9 Write short notes on:
a) Bronchopulmonary segments **3**
b) Bronchial tree **2**
- Q.10 Describe in brief the anatomy of middle ear. **5**
- Q.11 Write short notes on:
a) Organ of Corti **2**
b) Dura mater **3**
- Q.12 Short notes on:
a) Phylum terminale **2**
b) CSF **3**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Second Semester
PHYSIOLOGY-II (PT-202)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- | | | |
|-----|---|-----------|
| Q.1 | Explain neural regulation of respiration. | 10 |
| Q.2 | Describe spermatogenesis and factors regulating it. | 10 |
| Q.3 | What are the actions of growth hormone? Add a note on acromegaly. | 10 |
| Q.4 | Describe pain pathway. Write a note on referred pain. | 10 |

PART-B

- | | | |
|------|---|----------|
| Q.5 | Discuss non-respiratory functions of lungs. | 5 |
| Q.6 | Describe types of oral contraceptive pills and their mechanism of action. | 5 |
| Q.7 | Write functions of cerebellum. | 5 |
| Q.8 | Describe chloride shift. | 5 |
| Q.9 | Describe visual pathway with the help of a labeled diagram. | 5 |
| Q.10 | What is GFR? Give its normal value. Describe factors affecting it. | 5 |
| Q.11 | Describe the structure and functions of different parts of a nephron. | 5 |
| Q.12 | Discuss physiological effects of physical training. | 5 |

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Second Semester
ELECTROTHERAPY-I (PT-203)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail physiology of nerve membrane potential. **10**
- Q.2 Explain in detail pain gate theory along with role of TENS in pain management. **10**
- Q.3 Define iontophoresis. Write its principle, indication and contraindication for use of iontophoresis. **10**
- Q.4 Write in detail physiological effects of faradic type current. **10**

PART-B

- Q.5 Explain absolute and relative refractory period. **5**
- Q.6 Explain electromyography. **5**
- Q.7 Write the indications for use of interferential therapy (IFT). **5**
- Q.8 Explain the advantages of scanning mode of interferential therapy. **5**
- Q.9 Write a note on strength duration curve of innervated and denervated muscle. **5**
- Q.10 Write a note on chronaxie and rheobase. **5**
- Q.11 Explain depolarization and repolarisation. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Second Semester
EXERCISE THERAPY-I (PT-204)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain the fundamental position of kneeling along with force derived position. **10**
- Q.2 Define and classify stretching. Write the indication and contraindication for stretching. **10**
- Q.3 Discuss the principles and grades of manual muscle testing. Describe the testing procedures for right elbow extensors. **10**
- Q.4 Define resistance exercises. Write principles, contraindication and indication for resistance exercise. **10**

PART-B

- Q.5 Explain Thomas test. **5**
- Q.6 Write the principles for passive movement exercises. **5**
- Q.7 Discuss the causes of joint range limitation. **5**
- Q.8 Differentiate between open and closed chain exercise. **5**
- Q.9 Write indication for joint mobilization. **5**
- Q.10 Enumerate indications for active range of motion exercises. **5**
- Q.11 Explain the type of goniometer. **5**
- Q.12 Describe the stretching procedure for Gastrocnemius and Soleus. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Third Semester
PHARMACOLOGY (PT-301)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Write the types of Penicillin's and its uses. **10**
- Q.2 Write uses and side effects of Tetracycline. **10**
- Q.3 Write in detail clinical features, investigation and treatment of heart failure. **10**
- Q.4 Explain the classification of antiepileptic and write in detail about side effects of Phenytoin. **10**

PART-B

- Q.5 Write the drug used in peptic ulcer. **5**
- Q.6 Write the classification of NSAID's. **5**
- Q.7 Discuss the 2nd generation antihistaminic. **5**
- Q.8 Explain aminoglycosides mechanism, uses and side effect. **5**
- Q.9 Write the classification of parasympatholytics. **5**
- Q.10 Write a note on O.P. poisoning. **5**
- Q.11 Explain anaphylactic shock. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Third Semester
PATHOLOGY AND MICROBIOLOGY (PT-302)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Classify anemias. Describe iron deficiency anemia in detail. **10**
- Q.2 What do you mean by COPD? Describe emphysema with regard its pathogenesis, morphology and clinical findings. **10**
- Q.3 Define neoplasia. Describe difference between benign and malignant tumors in detail. **10**
- Q.4 Give the symptoms, characteristic features and diagnostic finding in hepatitis and poliomyelitis. **10**

PART-B

Write short notes on **any six** of the following:

- Q.5 Chemical mediators of inflammation. **5**
- Q.6 Healing of a fracture. **5**
- Q.7 Secondary tuberculosis. **5**
- Q.8 Active immunity. **5**
- Q.9 Lung abscess. **5**
- Q.10 CNS hematoma. **5**
- Q.11 Tetanus. **5**
- Q.12 Lifecycle of malarial parasite. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Third Semester
ELECTROTHERAPY-II (PT-303)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain short wave diathermy under the following:
a) Physiological effects of short wave diathermy.
b) Methods of electrode positioning. **5x2**
- Q.2 Describe about properties of ultra sound waves. Discuss the thermal and non-thermal effects of ultra sound. **10**
- Q.3 Define and classify ultraviolet radiation. Discuss the physiological effects of a ultra violet radiation. **10**
- Q.4 Classify superficial heating agent. Explain the physiological effects of superficial heating agent. **10**

PART-B

- Q.5 Discuss the production of a luminous generator. **5**
- Q.6 Explain the following terms:
a) Cosine law.
b) Reverse perizoelectric effect. **5**
- Q.7 Write the advantages of bio-feed back. **5**
- Q.8 Enumerate the therapeutic uses of phonophoresis. **5**
- Q.9 Explain the therapeutic effects of micro wave diathermy. **5**
- Q.10 Write the physical properties of a laser. **5**
- Q.11 Write a note on combination therapy. **5**
- Q.12 Write the method of application of paraffin wax bath. **5**

End Semester Examination, Dec. 2014
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**.

PART-A

- | | | |
|-----|--|-----------|
| Q.1 | Explain normal gait cycle and muscles responsible for normal gait. | 10 |
| Q.2 | Explain various non-weight bearing and partial weight bearing gait. | 10 |
| Q.3 | Explain in detail sway back posture along its management. | 10 |
| Q.4 | Explain in detail various bed rest complications and its management. | 10 |

PART-B

- | | | |
|------|--|----------|
| Q.5 | Discuss briefly trendelenburg's gait. | 5 |
| Q.6 | Discuss briefly VO ₂ max. | 5 |
| Q.7 | Discuss briefly pelvic tilt. | 5 |
| Q.8 | Discuss briefly frenkel's exercises. | 5 |
| Q.9 | Discuss briefly mat exercises. | 5 |
| Q.10 | Discuss briefly Jacobson's progressive relaxation technique. | 5 |
| Q.11 | Discuss briefly aerobic exercise. | 5 |
| Q.12 | Discuss briefly rhythmic initiation technique of PNF. | 5 |

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Fourth Semester
MEDICINE (PT-401)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- | | | |
|-----|---|-----------|
| Q.1 | Describe various types of anemia. | 10 |
| Q.2 | Define jaundice. Explain the types of jaundice. | 10 |
| Q.3 | Describe aetiopathogenesis, types, clinical features, stages and treatment of a cataract. | 10 |
| Q.4 | Describe about fungal infections of skin. | 10 |

PART-B

Write short notes on:

- | | | |
|------|---|----------|
| Q.5 | Clinical features of nephrotic syndrome. | 5 |
| Q.6 | Complications of blood transfusion. | 5 |
| Q.7 | Clinical features of hypothyroidism. | 5 |
| Q.8 | Gallstones. | 5 |
| Q.9 | Hearing loss, its types, its characteristics and treatment. | 5 |
| Q.10 | Bacterial corneal ulcer. | 5 |
| Q.11 | Otosclerosis. | 5 |
| Q.12 | Diabetic retinopathy. | 5 |

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Fourth Semester
SURGERY INCLUDING OBSTETRICS AND GYNECOLOGY (PT-402)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What are the causes of burns in one routine life and how do we manage a case of burn? **10**
- Q.2 Write indication of blood transfusion. Explain the method of blood transfusion and complications that occur during a blood transfusion. **10**
- Q.3 What is normal labour? Explain different stages of labour along with its management. **10**
- Q.4 What is ulcer? What are the causes of ulcer? How will you dress a ulcer? **10**

PART-B

- Q.5 Write a note on types of wounds. **5**
- Q.6 Write clinical features and management of carbuncle. **5**
- Q.7 Write complication of cholecystectomy. **5**
- Q.8 Write indication and complication of hernioplasty. **5**
- Q.9 Write a note on ectopic pregnancy. **5**
- Q.10 Explain the types of caesarean sections. **5**
- Q.11 Write a note on fibroid uterus. **5**
- Q.12 Explain normal puerperium. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Fourth Semester
BIOMECHANICS-I (PT-403)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Define biomechanics. What is the role of biomechanics in the field of physiotherapy? **10**
- Q.2 Define joint. Discuss in detail the characteristics of synovial joint with suitable diagram. **10**
- Q.3 Discuss in detail the classification of skeletal muscles. Write a note on biomechanical properties of a skeletal muscle. **10**
- Q.4 Enumerate the various joints in shoulder complex. Write a note on scapula-humeral rhythm. **10**

PART-B

- Q.5 Differentiate between open chain and closed chain kinetic exercises. **5**
- Q.6 Define Newton's 1st and 3rd law with examples. **5**
- Q.7 Write short notes:
a) Gravity
b) TORQUE **2½x2**
- Q.8 Write down the factors affecting equilibrium. **5**
- Q.9 Write down the significance of carrying angle. Enumerate the various ligaments of elbow. **5**
- Q.10 Write a note on synovial fluid composition. **5**
- Q.11 Discuss in detail the mechanical advantage of levers. **5**
- Q.12 Give the classification of motion. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Fourth Semester
PSYCHOLOGY AND PSYCHIATRY (PT-404)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain somatoform disorders. **10**
- Q.2 Explain the definitions and applications in psychology. Add a note on the methods in psychology. **10**
- Q.3 Explain biology of behaviour. **10**
- Q.4 Explain the term "memory". Write about the types of memory. Add a note on forgetting. **10**

PART-B

- Q.5 Add a note on personality disorders. **5**
- Q.6 Explain attention deficit hyperactivity disorders. **5**
- Q.7 Write a short note on theories of learning. **5**
- Q.8 Write a note on theories of motivation. **5**
- Q.9 Explain major depressive disorders. **5**
- Q.10 Write a note on counselling. **5**
- Q.11 Explain therapy for psychological distress. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Fourth Semester
ADMINISTRATION AND ETHICS (PT-405)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What is correspondence? Discuss various methods of correspondence. **10**
- Q.2 Elaborate on insurance (medical) available in India. **10**
- Q.3 Describe in detail your understandings about "TIME MANAGEMENT". **10**
- Q.4 Explain in detail Consumer Protection Act. **10**

PART-B

- Q.5 Write a short note on various types of budgets. **5**
- Q.6 Briefly outline safety precautions that should be adopted in a physiotherapy department. **5**
- Q.7 Write a short note on "Importance of documentation" for healthcare professionals. **5**
- Q.8 What are the benefits available to a disabled person in India? **5**
- Q.9 What is SWOT analysis? **5**
- Q.10 What are various principles of IAP? **5**
- Q.11 What do you understand by Law? What is an MLC? **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Fifth Semester
ORTHOPEDECS (PT-501)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain acute osteomyelitis-Etiopathogenesis clinical feature, diagnosis and management. **10**
- Q.2 Explain congenital talipes equines varus foot (CTEV Foot) – clinical feature, diagnosis and management. **10**
- Q.3 Explain Rickets – clinical presentations, radiological feature and management. **10**
- Q.4 Explain Ankle fracture – classification and management. **10**

PART-B

Write short notes on:

- Q.5 Sudeck's dystrophy. **5**
- Q.6 Osteoid osteoma. **5**
- Q.7 Bone cement. **5**
- Q.8 Symptoms and sign of fracture. **5**
- Q.9 Triple arthrodesis. **5**
- Q.10 Radiological feature of osteoclastoma of bone. **5**
- Q.11 Factor affecting fracture healing. **5**
- Q.12 Pulled elbow. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Fifth Semester
ORTHOPAEDICS PHYSIOTHERAPY (PT-502)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Discuss assessment of a stump and its treatment goals. **10**
- Q.2 Describe the prevention and management of different complications of fractures. **10**
- Q.3 Explain the pre-and post-operative physiotherapy management for THR. **10**
- Q.4 Describe the assessment and PT management in case of PIVD. **10**

PART-B

- Q.5 Write a short note on tennis elbow. **5**
- Q.6 Write a short note on scoliosis with emphasis on PT management. **5**
- Q.7 Differentiate between osteotomy and arthrodesis. **5**
- Q.8 Discuss various stages of adhesive capsulitis with PT management. **5**
- Q.9 Write down the clinical assessment of a radial nerve injury. **5**
- Q.10 Explain the pathophysiology of ankylosing spondylitis along with clinical features. **5**
- Q.11 Describe the assessment for a musculoskeletal injury. **5**
- Q.12 Explain the complications of supracondylar fracture in a 12 year old child. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Fifth Semester
BIOMECHANICS-II (PT-503)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain the various activities done at home. Enumerate the ergonomics principles to be adopted while doing them. **10**
- Q.2 Enumerate on the various techniques of carrying a child. **10**
- Q.3 Define biomechanics. Write in detail the importance of biomechanics in the field of physiotherapy. **10**
- Q.4 Define one GAIT cycle. Describe the muscle activity during stance phase. **10**

PART-B

- Q.5 Write a short note on concave-convex rule with the help of a diagram. **5**
- Q.6 Draw a well labeled diagram of FSU. **5**
- Q.7 Discuss the Lumbo Sacral rhythm. **5**
- Q.8 What are the various physiological risk factors of RSD's? **5**
- Q.9 Name the various ligaments of knee and write the functions of each. **5**
- Q.10 Write a short note on biomechanics of ankle joint. **5**
- Q.11 What ergonomic considerations will you keep in mind while washing clothes. **5**
- Q.12 What are the functions of bursa and write a note on bursitis. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Sixth Semester
NEUROLOGY AND NEUROSURGERY (PT-601)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- | | | |
|-----|---|-----------|
| Q.1 | Discuss the etiology and management of hydrocephalus. | 10 |
| Q.2 | Define cerebral palsy. Discuss the different types of cerebral palsy. | 10 |
| Q.3 | Clinical features of management of Parkinsonism. | 10 |
| Q.4 | Describe sign, symptoms and management of meningitis. | 10 |

PART-B

- | | | |
|------|--|----------|
| Q.5 | Describe clinical features of G.B syndrome. | 5 |
| Q.6 | Differentiate between medial and lateral medullary syndrome. | 5 |
| Q.7 | Describe clinical features of myasthenia grans. | 5 |
| Q.8 | Explain ALZHEIMER'S Dementia. | 5 |
| Q.9 | Explain functional areas of parietal lobe. | 5 |
| Q.10 | Describe Paralytic poliomyelitis. | 5 |
| Q.11 | Describe Diabetic neuropathy. | 5 |
| Q.12 | Explain Tubercular meningitis. | 5 |

End Semester Examination, Dec. 2014
B. Sc. (N & D) - Sixth Semester
INSTITUTIONAL FOOD ADMINISTRATION (BND-602)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- | | | |
|-----|--|-----------|
| Q.1 | Discuss planning and organization of storage spaces. | 10 |
| Q.2 | Explain in detail the methods of evaluation of recipes. | 10 |
| Q.3 | Discuss the various forms of service in detail. | 10 |
| Q.4 | Discuss the planning of equipments used in an institutional kitchen. | 10 |

PART-B

Write short notes on the following:

- | | | |
|------|--|-------------|
| Q.5 | Planning menus for hospitals. | 5 |
| Q.6 | Selection and buying of:
a) Meat, fish, poultry
b) Fruits and vegetables | 2½x2 |
| Q.7 | Table decoration | 5 |
| Q.8 | Work simplification. | 5 |
| Q.9 | Safety in institutional kitchens. | 5 |
| Q.10 | Aspects of meal management. | 5 |
| Q.11 | Method of writing recipes. | 5 |

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Sixth Semester
NEUROLOGICAL PHYSIOTHERAPY (PT-602)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Write in detail physiotherapy management of a patient with Duchenne muscular dystrophy. **10**
- Q.2 Write in detail sensory assessment of a neurologically ill patient. **10**
- Q.3 Write in detail physiotherapy management of a patient with poliomyelitis. **10**
- Q.4 Write in detail various principles of motor relearning program. **10**

PART-B

- Q.5 Describe role of TENS in pain management. **5**
- Q.6 Describe briefly hold-relax technique. **5**
- Q.7 Describe various stimulation techniques of Rood's approach. **5**
- Q.8 Describe briefly various factors influencing alpha motor neuron activity. **5**
- Q.9 Explain briefly physiotherapy management of Parkinson's disease. **5**
- Q.10 Explain briefly structure of neuron and synapse. **5**
- Q.11 Explain briefly waddling gait. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Sixth Semester
MANUAL THERAPY (PT-603)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain neurodynamics in detail along with its principles. What are the indications of neurodynamics? **10**
- Q.2 Explain three syndromes given by Mekenzie. **10**
- Q.3 Describe kaltenborn technique in detail along with its grades. **10**
- Q.4 What is massage therapy? What are neuro physiological and physiological effects of massage therapy? **10**

PART-B

- Q.5 Describe upper limb tension tests. **5**
- Q.6 Explain therapeutic measures to decrease pain. **5**
- Q.7 Explain SNAG and NAG. **5**
- Q.8 Explain Tapotement technique in detail. **5**
- Q.9 Explain types of derangement syndrome and its treatment. **5**
- Q.10 Explain mobilization technique of shoulder joint. **5**
- Q.11 Explain indications and contraindications of neurodynamics. **5**

End Semester Examination, Dec. 2014
 Bachelor of Physiotherapy - Sixth Semester
RESEARCH METHODOLOGY AND BIOSTATISTICS (PT-604)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

Q.1 What do you understand by sampling? What are laws of sampling? Classify sampling with suitable examples. **10**

Q.2 Describe the criteria for a good research report. **10**

Q.3 Find the missing frequency if the arithmetic mean is 28. Then find the median.

Marks:	0-10	10-20	20-30	30-40	40-50	50-60
Students:	12	18	27	?	17	6

10

Q.4 Calculate Karl Pearson's co-efficient of co-relation between expenditure and sales. Also comment on the type of co-relation.

Expenditure	Sales
39	47
65	53
62	58
90	86
82	62
75	68
25	60
98	91
36	51
78	84

10

PART-B

Q.5 Differentiate between alternate and null hypothesis with examples. **5**

Q.6 What do you understand by normal distribution? Describe its salient features. **5**

Q.7 Enlist the various levels of measurement of data. **5**

Q.8 What are the types of errors encountered in research? Describe them. **5**

Q.9 Discuss qualitative research designs. **5**

Q.10 Differentiate between reliability and validity. What are their types? **5**

Q.11 What guidelines are utilized for use and protection of human subject in clinical research? **5**

Q.12 The fitness scores on a particular fitness scale for 3 classes A, B, C are as follows:

	A	B	C
Mean	18.2	22.5	24.0
SD	5.4	4.5	6.0

Which class is more likely to be fitter than others?

5

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Seventh Semester
CARDIOPULMONARY AND CARDIOPULMONARY SURGERY (PT-701)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Define pneumonia. Describe various types of pneumonia based on etiology. **10**
- Q.2 Differentiate between angina and myocardial infarction. Describe risk factors for myocardial infarction. **10**
- Q.3 Discuss various types of congenital heart disease. **10**
- Q.4 Discuss clinical features and diagnosis of rheumatic fever. **10**

PART-B

Write short notes on:

- Q.5 Chronic bronchitis. **5**
- Q.6 Pulmonary tuberculosis. **5**
- Q.7 Fracture of rib. **5**
- Q.8 Pleural effusion. **5**
- Q.9 Various types of lung carcinoma. **5**
- Q.10 Treatment of bronchial asthma. **5**
- Q.11 Differentiate between lobar and bronchopneumonia. **5**
- Q.12 Complications of myocardial infarction. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Seventh Semester
CARDIOPULMONARY PHYSIOTHERAPY (PT-702)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Write about the different surgeries for atherosclerosis. What do you understand by the term CABG? Add a short note on home exercise program for a patient with cardio respiratory disease. **10**
- Q.2 A patient has been admitted to the ICU in a state of coma. How will your assessment lead to the diagnosis and guide the treatment plan? **10**
- Q.3 A 52 year old male suffering from pulmonary tuberculosis of the left lung has been scheduled for pneumonectomy. He is a smoker and hypertensive. Explain the post operative assessment and management. Add a note on complications of surgery. **10**
- Q.4 Explain the chief complaints of a cardiopulmonary disease. Add a note on the importance of history taking in assessment of cardiopulmonary diseases. **10**

PART-B

- Q.5 Write about bronchopulmonary segments. Add a note on its importance in physiotherapy practice. **5**
- Q.6 Explain the term pulsus paradoxus. **5**
- Q.7 Write about the mechanical aids to clear secretions from the respiratory tract and its importance of clearance. **5**
- Q.8 Explain the term and types of pneumothorax. **5**
- Q.9 Write about the differential diagnosis of a chest pain. **5**
- Q.10 Write about relaxation positions and its use in practice. **5**
- Q.11 Write the normal values of arterial blood gases. Add a note on metabolic acidosis and anion gap. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Seventh Semester
PEDIATRICS AND PEDIATRIC PHYSIOTHERAPY (PT-703)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What is spina bifida? Enumerate its types. Devise the treatment protocol for a 6 year old boy having spina bifida at T₁₂ level. **10**
- Q.2 What do you understand by growth? Explain the evaluation of pediatric growth on various parameters. **10**
- Q.3 What is club foot? Explain its clinical features, assessment and management. **10**
- Q.4 Differentiate between impairment, disability and handicap along with examples. Also explain various measures taken to prevent disability. **10**

PART-B

- Q.5 Write a short note on kwashiorkor. **5**
- Q.6 Explain the cardiorespiratory management of a DMD patient. **5**
- Q.7 Explain various methods for assessing scoliosis. **5**
- Q.8 Write a short note on post polio paralysis. **5**
- Q.9 Write a short note on clinical features and management of Marfans Syndrome. **5**
- Q.10 Explain the complications of lead poisoning in children. **5**
- Q.11 Write down a short note on gross motor development. **5**
- Q.12 Briefly explain clinical features of Down's Syndrome. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Eighth Semester
COMMUNITY BASED REHABILITATION (PT-801)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Enumerate the psychological development of humans from BIRTH to ADOLESCENCE. **10**
- Q.2 Differentiate between disease, sickness and illness. Mention the theories relating to the concept of health and disease. **10**
- Q.3 What is epidemiology? Discuss its determinants. **10**
- Q.4 How does social security of citizens help in the growth of a nation? **10**

PART-B

- Q.5 What are the objectives of national family planning? **5**
- Q.6 Mention few occupational diseases and methods to mitigate their occurrences. **5**
- Q.7 Comment on the community level aspect of mental health. **5**
- Q.8 Describe the importance of water to human beings. Mention the norms for potability purification of water. **5**
- Q.9 Describe the stages of population cycle. **5**
- Q.10 "Poliomyelitis"- comment on where did we start and how far have we reached? **5**
- Q.11 Differentiate between RURAL and URBAN HEALTH PROBLEMS. **5**
- Q.12 Describe few international health agencies and their role in maintaining the health of the people. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Eighth Semester
SPORTS MEDICINE AND SPORTS PHYSIOTHERAPY (PT-802)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain in detail the phases of rehabilitation and their importance. **10**
- Q.2 What are the roles and responsibilities of a sports physiotherapist? **10**
- Q.3 Explain the importance of pre-participation evaluation. **10**
- Q.4 How does environment play a role in sports injuries? Explain in detail. **10**

PART-B

- Q.5 Write down a rehabilitation protocol for 'rotator cuff injury'. **5**
- Q.6 Write a note on therapeutic use of exempted drug. **5**
- Q.7 Write down the various test for shoulder instability and explain any two of them. **5**
- Q.8 Write short notes on:
a) Golfer elbow
b) Students elbow **2½x2**
- Q.9 Write short notes on:
a) Charley's horse
b) Tennis leg **2½x2**
- Q.10 Discuss exercise induced asthma. What can be the various methods to prevent it? **5**
- Q.11 Enumerate the effects of exercise on cardio vascular system. **5**
- Q.12 Write down the special considerations for wheelchair bound athlete. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Eighth Semester
GENERAL PHYSIOTHERAPY (PT-803)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 Explain the site of surgical incisions for abdominal surgery. Also write a note on the role of physiotherapy in the pre and post operative periods. **10**
- Q.2 Explain the complications of pregnancy. Add a note on the role of physiotherapy in the postnatal period. **10**
- Q.3 Classify burns. Explain the role of physiotherapy in the post skin grafting period. Write a note on the types of skin grafts and positions which promote deformities in a burn patient. **10**
- Q.4 Explain the symptoms of patients with occupational disorders. Write a note on the role of physiotherapy in these disorders. **10**

PART-B

- Q.5 Write a note on cholecystectomy. **5**
- Q.6 Write a note on acne-vulgairs. **5**
- Q.7 Explain the tests to detect fetal abnormalities in the prenatal period. **5**
- Q.8 Write a note on Erb's palsy. **5**
- Q.9 Explain the role of ultra-violet radiation in dermatology. **5**
- Q.10 Explain the role of physiotherapy in mentally ill patients. **5**
- Q.11 Explain the changes in the body due to ageing. **5**

End Semester Examination, Dec. 2014
Bachelor of Physiotherapy - Eighth Semester
DISABILITY PREVENTION AND REHABILITATION (PT-804)

Time: 3 hrs

Max Marks: **60**

No. of pages: **1**

Note: Attempt any **THREE** questions from **Part-A** and **SIX** questions from **Part-B**.

PART-A

- Q.1 What are the functions of a rehabilitation team? Explain the functions of any three team members. **10**
- Q.2 What are the architectural barriers? What are the architectural barriers a disabled individual can face at his workplace? **10**
- Q.3 What are communication impairments? Explain in detail the assessment of speech disorders. **10**
- Q.4 Explain various parts of a wheelchair. Enumerate various types of wheelchairs. Mention the modification of the wheelchair for:
a) Spastic patient.
b) Overweight patient. **5x2**

PART-B

- Q.5 Write a short note on various models of vocational rehabilitation. **5**
- Q.6 Briefly explain tone reducing orthosis. **5**
- Q.7 Explain the process of creation of disability. **5**
- Q.8 Briefly explain PWD act. **5**
- Q.9 Write a short note on rehabilitation of burns. **5**
- Q.10 Explain the three point pressure principle used in fabrication of orthosis. **5**
- Q.11 Explain TLSO brace. **5**
- Q.12 Write a short note on taping. **5**