

Question Paper

Exam Date & Time: 30-May-2024 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SIXTH SEMESTER BPT/BOT/B.Sc. (ESS/ RRT & DT / RT / MIT) / FOURTH SEMESTER B.Sc. (PFT / CVT / CND / MLT / HIM / BOPT / BAOTT / RT / EMT / PHYSICIAN ASSISTANT / PSYCHOLOGY / NMT) / EIGHT SEMESTER (BPT / BOT) / SECOND SEMESTER BASLP DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: BST3201 / STAT 402 / BST 3202 - BIOSTATISTICS AND RESEARCH METHODOLOGY / BIOSTATISTICS / BASIC BIOSTATISTICS AND RESEARCH METHODOLOGY
(2016/2020/2022 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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|-----|--|-----|
| 1A) | Elaborate graphical representation with examples. | (5) |
| 1B) | Explain the properties of normal distribution with diagram. | (5) |
| 2A) | Describe different types of clinical study designs. | (5) |
| 2B) | Write short notes on non-probability sampling. | (5) |
| 3A) | The triglycerides (serum) (in mg/dL) of 10 patients were as follows:
155, 150, 106, 89, 63, 68, 144, 125, 130, 74
Calculate mean, and standard for the above data. | (5) |
| 3B) | Define the following: (i) Incidence rate (ii) prevalence rate. | (5) |
| 3C) | Discuss about regression analysis and its two equations. | (5) |
| 3D) | Write short notes on research process. | (5) |
| 4A) | Define skewness. | (2) |
| 4B) | The following are the weights for 10 patients. Calculate range and mode 60, 54, 74, 82, 59, 63, 72, 89, 58, 85. | (2) |
| 4C) | What is meant by systematic sampling? | (2) |
| 4D) | Define scatter plot. | (2) |
| 4E) | Define case report. | (2) |

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Question Paper

Exam Date & Time: 24-May-2024 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHT SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: PTH4201 - THEORETICAL CONCEPTS IN CARDIOPULMONARY PHYSIOTHERAPY- II
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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| 1) | Explain the physiotherapy assessment and treatment of a 45 year old male patient with bronchiectasis. | (10) |
| 2) | Discuss the post-operative physiotherapy management for a 38 year old female patient after cholecystectomy. | (10) |
| 3A) | Define Cardiac rehabilitation. Explain what is phase 2 cardiac rehabilitation. | (5) |
| 3B) | Explain the physiotherapy management for a patient with peripheral arterial disease. | (5) |
| 3C) | Explain the components of pulmonary rehabilitation. | (5) |
| 3D) | List the precautions and exercise termination criteria for health-related physical fitness testing. | (5) |
| 4A) | List ANY TWO precautions during exercise training in cancer rehabilitation. | (2) |
| 4B) | Mention ANY TWO types of abdominal incisions. | (2) |
| 4C) | Mention ANY TWO contraindications for incentive spirometry. | (2) |
| 4D) | List ANY TWO occupational lung diseases. | (2) |
| 4E) | List ANY TWO bronchodilator drugs. | (2) |

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Question Paper

Exam Date & Time: 22-May-2024 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHTH SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: PTH4202 - THEORETICAL CONCEPTS FOR PHYSIOTHERAPY IN SPECIAL CONDITIONS
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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| 1) | Explain the Physiotherapy management during labour. | (10) |
| 2) | Explain the exercise prescription for a 48-year-old obese woman in her post-menopause stage. | (10) |
| 3A) | Discuss the stages of wound healing. | (5) |
| 3B) | Discuss ANY FIVE gait deviations due to issues related to prosthesis. | (5) |
| 3C) | Explain various risk factors for developmental disability in children. | (5) |
| 3D) | Explain the manual method of evaluation of Diastasis Rectus Abdominus. | (5) |
| 4A) | Mention ANY FOUR types of menstrual disorders. | (2) |
| 4B) | Mention ANY TWO clinical features of Hansen's disease. | (2) |
| 4C) | List ANY TWO types of sports for people with paraplegia. | (2) |
| 4D) | Mention ANY TWO types of long-term complications following third-degree burns in the upper limb. | (2) |
| 4E) | List ANY TWO National programs on child health. | (2) |

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Question Paper

Exam Date & Time: 20-May-2024 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHTH SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024

SUBJECT: PTH4203 - ELECTRODIAGNOSIS

(2020 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the stages of EMG recording. List the abnormal spontaneous potentials recorded at rest and differentiate the neurogenic and myogenic potentials among them. (20)
(5+15 = 20 marks)
- 2) List the indications of Motor nerve conduction velocity. Explain the procedure of recording Motor nerve conduction velocity. Describe the factors affecting the parameters. (20)
(4+10+6 = 20 marks)
- 3) List the different types of electrodes used in an EMG & NCV device. Describe any four electrodes in detail. (10)
(2+8 = 10 marks)
- 4) What is F wave? Describe the procedure of recording and parameters. (10)
(1+5+4 = 10 marks)
- 5A) Explain the physiological properties of motor unit. (5)
- 5B) What is Repetitive Nerve Stimulation? list its indications and types of stimulation. (5)
- 5C) Outline the merits and demerits of EMG Biofeedback. (5)
- 5D) Explain the generation and propagation of membrane potential and its response to electrical currents. (5)
- 5E) Describe the electrodiagnostic classification of peripheral nerve injuries. (5)
- 5F) What is H reflex? Describe the parameters measured during H reflex. (5)
- 6A) What is a 'Sweep' in a display of electrodiagnostic? (2)
- 6B) Define Chronaxie. (2)
- 6C) Mention any TWO indications for Sensory evoked potential. (2)
- 6D) Mention the abnormalities recorded during the insertional activity of EMG recording. (2)
- 6E) Mention the normal values of upper limb nerve conduction velocity. (2)

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Question Paper

Exam Date & Time: 27-May-2024 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHT SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: PTH4241 - PROGRAM ELECTIVE - II : DISABILITY AND HEALTH
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Outline the provisions under the United Nations Convention for Persons, 2006 with Disabilities and the Rights of Persons with Disabilities Act, 2016 in the context of health and welfare. (10)
(5+5 = 10 marks)
- 2) Explain the influence of the environment on the participation of individuals with disabilities. Outline the impact of the built environment on physical activity participation among individuals with disabilities. (10)
(5+5 = 10 marks)
- 3A) What is Inclusive Education? Explain the importance of inclusive education on children with disabilities, families, and community. (5)
(1+4 = 5 marks)
- 3B) Explain the roles of media in Disability Studies and the welfare of persons with disabilities. (5)
- 3C) Explain the role of Physiotherapy in Disability Inclusive Disaster Management Strategies. (5)
- 3D) Explain the interplay of race, gender, and disability in the Indian Context and how it leads to health inequity. (5)
- 4A) List TWO aids used for the inclusive education of school-going children with disabilities. (2)
- 4B) List TWO roles of Physiotherapy in the early rehabilitation of individuals with disabilities following disaster. (2)
- 4C) What are the social determinants of health? (2)
- 4D) List TWO implications of climate change on the health of persons with disability. (2)
- 4E) What is ableism? (2)

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Question Paper

Exam Date & Time: 27-May-2024 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHT SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: PTH4242 - PROGRAM ELECTIVE - II : CANCER REHABILITATION
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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|-----|---|------|
| 1) | Explain physiotherapy management for sequelae for surgical complications in brain tumor rehabilitation. | (10) |
| 2) | Classify the types and explain the uses and side effects of chemotherapy. | (10) |
| 3A) | Outline the methods of evaluating cancer related fatigue. | (5) |
| 3B) | List and outline the role of physiotherapy in breast cancer rehabilitation. | (5) |
| 3C) | Summarize an evidence-based exercise program in cancer related lymphedema. | (5) |
| 3D) | Outline the surgery related complications in head and neck cancer survivors. | (5) |
| 4A) | List the risk factors of cancer. | (2) |
| 4B) | Name any two malignant bone tumors. | (2) |
| 4C) | What is palliative care? | (2) |
| 4D) | List any two side effects of radiation therapy. | (2) |
| 4E) | Outline the role of psychologist in cancer rehabilitation. | (2) |

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Question Paper

Exam Date & Time: 24-May-2024 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHT SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: BPT 402TH - CARDIOPULMONARY PHYSIOTHERAPY - II
(2016 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) List the components of cardiac rehabilitation. Explain the phase one and three cardiac rehabilitation for a patient who has undergone Coronary artery bypass graft surgery (CABG). (20)
(8+12 = 20 marks)
- 2) List the components of Pulmonary rehabilitation and explain the pulmonary rehabilitation program for a 57-year-old male smoker with chronic obstructive pulmonary disease. The patient presented with breathlessness during daily activities. (20)
(6+14 = 20 marks)
- 3) A 49-year-old male has a history of pollen allergy and has been diagnosed with bronchial asthma for the past 30 years. Explain this patient's physiotherapy assessment and management. (10)
(5+5 = 10 marks)
- 4) Explain ANY TWO health-related components of fitness evaluation. (10)
(5+5 = 10 marks)
- 5A) Explain post-operative physiotherapy treatment of left-sided pneumonectomy. (5)
- 5B) Compare the types of respiratory failure. (5)
- 5C) Explain strength training methods for a 30-year-old healthy individuals. (5)
- 5D) Explain physiotherapy management for Lipid disorders. (5)
- 5E) Summarize the objective methods of physical activity evaluation. (5)
- 5F) Outline physiotherapy management for Buerger's disease. (5)
- 6A) Mention ANY TWO side effects of radiotherapy. (2)
- 6B) Mention stages of Hypertension. (2)
- 6C) Mention types of Pneumothorax. (2)
- 6D) Mention ANY TWO pharmacological ergogenic aid. (2)
- 6E) Mention ANY TWO advantages of circuit training. (2)

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Question Paper

Exam Date & Time: 22-May-2024 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHTH SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: BPT 404TH - COMMUNITY PHYSIOTHERAPY II
(2016 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

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| 1) | What is a geriatric fall? Mention its risk factors. Explain balance tests and physiotherapy management for a recurrent faller.
(4+4+6+6 = 20 marks) | (20) |
| 2) | Describe functional capacity evaluation for a transtibial amputee who is a four-wheeler mechanic. | (20) |
| 3) | Explain the role of a physiotherapist in improving bone health for post-menopausal women. | (10) |
| 4) | Explain the musculoskeletal system changes in aging with its implications for a physiotherapist. | (10) |
| 5A) | Explain fitness evaluation among older adults. | (5) |
| 5B) | Explain ANY FIVE principles of ergonomics. | (5) |
| 5C) | Describe the role of exercises during pregnancy. | (5) |
| 5D) | Explain the preventive management for sarcopenia in older adults. | (5) |
| 5E) | Write in brief about the work conditioning program. | (5) |
| 5F) | Briefly explain the risk factors for work-related musculoskeletal disorders. | (5) |
| 6A) | List ANY TWO thermoregulatory changes in older adults. | (2) |
| 6B) | Define ergonomics. | (2) |
| 6C) | Classify WRMSDs. | (2) |
| 6D) | What is job simulation? | (2) |
| 6E) | Define early intervention. | (2) |

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Question Paper

Exam Date & Time: 20-May-2024 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHTH SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: BPT 406 - ETHICS ADMINISTRATION AND TEACHING SKILLS
(2016 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) A new physiotherapy clinic is being set up. Explain the how you would go about planning the setup, (20)
procuring the equipment, ensuring equipment maintenance and recruitment of new therapists.
(8+4+4+4 = 20 marks)
- 2) Describe the principles of ethics with appropriate examples for each one. Explain the ethical issues (20)
with preference to patient's rights.
(10+10 = 20 marks)
- 3) Explain financing of healthcare for the poor with respect to definition, concepts, principles, and (10)
types.
(2+2+3+3 = 10 marks)
- 4) Explain the ethical guidelines governing research highlighting the importance of the institutional (10)
ethics committee.
(6+4 = 10 marks)
- 5A) Describe the multiple roles of a teacher. (5)
- 5B) Describe the ethical issues when using patients for teaching. (5)
- 5C) What strategies can be used to resolve conflicts in the clinic? (5)
- 5D) Describe the potential legal issues arising from a disgruntled patient. (5)
- 5E) Explain the principles and methods of public education. (5)
- 5F) Describe the components of academic integrity. (5)
- 6A) Elaborate the "Do Not Resuscitate (DNR)" directive. (2)
- 6B) Expand CTRL. (2)
- 6C) List any TWO advantages of small group discussion. (2)
- 6D) What is the classification for hospitals? (2)
- 6E) Provide an example of negligence in Physiotherapy practice. (2)

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