Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

SIXTH SEMESTER B.Sc. ESS/B.Sc. MLT/ B.Sc. MRT/ B.Sc. MIT / B.Sc. RRT & DT/EIGHTH SEMESTER BPT/BOT DEGREE EXAMINATION - MAY 2022
SUBJECT: STAT 402 - BIOSTATISTICS & RESEARCH METHODOLOGY /BASIC BIOSTATISTICS & RESEARCH METHODOLOGY/BIOSTATISTICS
(2016 SCHEME/2016 RV SCHEME)

Marks: 50   **Duration: 120 mins.**

Answer all the questions.

1. **Briefly explain the following:**

1A)	Ordinal scale.	(2)
1B)	General Fertility Rate (GFR).	(2)
1C)	Infant Mortality Rate (IMR).	(2)
1D)	Maternal Mortality Rate (MMR).	(2)
1E)	Ecological Fallacy.	(2)

2. **Write short notes on the following:**

2A)	Types of variables	(5)
2B)	Census	(5)

3)	Erythrocyte Sedimentation Rate (ESR) readings (in mm) of 12 tuberculosis patients are given below. 12 8 11 9 8 14 8 12 8 9 11 10 Calculate the value of Coefficient of variation and Range of the data. ((2+5)+3 = 10 marks)	(10)
4)	A random sample of 150 children had a mean urinary lead concentration of 3.15 μmol/24hr, with standard deviation 0.75. Construct reference range which includes 95% of the observations.	(5)

5. A researcher wants to predict vital capacity of lungs (i.e. is the maximum amount of air a person can expel from the lungs after a maximum inhalation, measured in litres) using height of the individuals (measured in cms). A simple linear regression model was fit and it was found that the slope for height was 0.2. The intercept for the model was -0.5.
Using the model obtained from this study, answer the following questions:

5A)	State the dependent variable and independent variable of the fitted model.	(3)
5B)	Write the form of simple linear regression model using the slope and intercept.	(3.5)

5C)   Interpret the value of slope.   (3.5)

6)   'Correlation does not imply causation'. Explain this statement with an example.   (5)

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EIGHTH SEMESTER BPT DEGREE EXAMINATION - MAY 2022
SUBJECT: BPT 402 - CARDIO-PULMONARY PHYSIOTHERAPY II
(2016 SCHEME)

Marks: 100   **Duration: 180 mins.**

Answer all the questions.

1)	List the indications for pulmonary rehabilitation. Explain the components of Pulmonary rehabilitation (4+16 = 20 marks)	(20)
2)	Define Cardiac rehabilitation. List the indications and explain Phase I Cardiac rehabilitation. (2+4+14 = 20 marks)	(20)
3)	Discuss the preoperative and post-operative physiotherapy management following abdominal surgeries (5+5 = 10 marks)	(10)
4)	Explain physiotherapy management for chronic obstructive pulmonary disease	(10)
5A)	Explain physiotherapy management for patients post modified radical mastectomy surgery	(5)
5B)	List the components of health-related physical fitness. Mention methods for anthropometric evaluation. (2+3 = 5 marks)	(5)
5C)	Explain Physiotherapy management for arterial disease	(5)
5D)	Explain Lymphedema management	(5)
5E)	Discuss the physiotherapy program for management of Diabetes Mellitus	(5)
5F)	Discuss Physiotherapy management for left lower lobe pneumonia	(5)
6A)	Mention ANY TWO methods of physical activity evaluation	(2)
6B)	Mention ANY two ergogenic aids	(2)
6C)	Mention types of respiratory failure	(2)
6D)	Mention ANY TWO indications for six-minute walk test	(2)
6E)	Mention ANY TWO effects of general anaesthesia on respiratory system	(2)

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MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHTH SEMESTER BPT DEGREE EXAMINATION - MAY 2022
SUBJECT: BPT 404 - COMMUNITY PHYSIOTHERAPY II
(2016 SCHEME)

Marks: 100   **Duration: 180 mins.**

Answer all the questions.

1)	Explain the return to work process for a breast cancer survivor who is a teacher.	(20)
2)	What is osteoporosis? Explain its diagnosis, evaluation, and physiotherapy management for osteopenia and osteoporosis. (3+3+4+5+5 = 20 marks)	(20)
3)	Describe fitness evaluation in the elderly.	(10)
4)	Write in detail the role of a physiotherapist in preventing complications of pregnancy.	(10)
5A)	Explain ANY FIVE theories of aging	(5)
5B)	Explain ANY FIVE occupational hazards with its preventive measures	(5)
5C)	Explain musculoskeletal changes during pregnancy	(5)
5D)	Explain early intervention for a high-risk infant in the community	(5)
5E)	Draw a labelled diagram of industrial therapy spectrum.	(5)
5F)	Write the diagnostic criteria, evaluation and management of work-related musculoskeletal disorders. (1+2+2 = 5 marks)	(5)
6A)	Mention ANY FOUR acute responses to exercises in older adults	(2)
6B)	What is Hospice care?	(2)
6C)	What is Kegel's exercise?	(2)
6D)	Define incontinence	(2)
6E)	Define dementia	(2)

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Question Paper

Exam Date & Time: 23-May-2022 (10:00 AM - 01:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

EIGHTH SEMESTER BPT DEGREE EXAMINATION - MAY 2022
SUBJECT: BPT 406 - ETHICS, ADMINISTRATION AND TEACHING SKILLS
(2016 SCHEME)

Marks: 100   **Duration: 180 mins.**

Answer all the questions.

1)	What is a medical negligence? Explain the types of medical negligence and onus of proof. Explain ethical challenges that are encountered by a therapist while ensuring patient confidentiality. (5+5+10 = 20 marks)	(20)
2)	Explain the four principles of bio-ethics with examples from Physiotherapy practice.	(20)
3)	Explain the ethical challenges encountered when resuscitating a patient in acritical care set-up.	(10)
4)	Explain the role of a Physiotherapist in managing the ethical challenges encountered in an end-of-life care setting.	(10)
5A)	Explain the steps for hospital hygiene and infection control to be taken in a hospital	(5)
5B)	Explain the components of academic integrity	(5)
5C)	Explain the ethical challenges encountered in research	(5)
5D)	Explain the benefits of using various types of audio-visual aids in academics	(5)
5E)	What are the affiliation requirements for recognition of Physiotherapy course?	(5)
5F)	Explain strategies to prevent ethical concerns during use of patients for teaching.	(5)
6A)	Mention TWO role of ICMR in research in healthcare	(2)
6B)	Mention TWO needs for Ethics Committee in research	(2)
6C)	Mention TWO benefits of classroom teaching	(2)
6D)	Mention FOUR importance of regulatory or affiliation bodies in Physiotherapy	(2)
6E)	Mention TWO need for Department maintainance	(2)

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