

MANIPAL UNIVERSITY

FOURTH YEAR B.P.T DEGREE EXAMINATION – DECEMBER 2010

SUBJECT: RESEARCH METHODOLOGY AND BIOSTATISTICS (NEW REGULATION)

Monday, December 13, 2010

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. Define the following:

- 1A. Crude death rate
- 1B. Infant mortality rate
- 1C. Neonatal mortality rate
- 1D. Post neonatal mortality rate
- 1E. Perinatal mortality rate

(2×5 = 10 marks)

- 2A. What do you mean by central tendency? Define the various measure of central tendency.
- 2B. Calculate range and standard deviation for the following data.

Age of 10 subjects in years	23	27	29	20	32	25	36	31	38	33
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(5+5 = 10 marks)

- 3A. With the help of diagrams enumerate the properties of correlation coefficient.
- 3B. Hemoglobin levels (in gm%) of 1500 students follows normal distribution with mean 13 and standard deviation 3. What percentage students will have hemoglobin level?
 - i) Between 16 and 19
 - ii) Below 7

(5+5 = 10 marks)

- 4A. What is meant by hypothesis? What are the characteristics of a good hypothesis?
- 4B. Two medical colleges A & B conducted a study on addiction of alcohol among their students. Out of 1000 students in college A, 200 students reported that they are addicted to alcohol while 350 students out of 1100 from college B reported of addiction. Present this data using a multiple bar diagram.

(5+5 = 10 marks)

- 5A. Define population, sample, sampling, probability sampling and non-probability sampling.
- 5B. Briefly explain simple random sampling.

(5+5 = 10 marks)

- 6A. Discuss the various measurement scales with help of appropriate examples.
- 6B. Define epidemiology and enumerate the uses of epidemiology.

(5+5 = 10 marks)

7. Write short notes on:

- 7A. Role of statistics in health science research.
- 7B. Dependent and independent variables with examples.
- 7C. Health information system and its uses.
- 7D. Cross sectional studies.

(5×4 = 20 marks)



MANIPAL UNIVERSITY
FOURTH YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2010

SUBJECT: MEDICINE
(NEW REGULATION)

Wednesday, December 15, 2010

Time: 10:00-13:00 Hrs

Maximum Marks: 80

Answer All Questions:

1. Define Obesity. Discuss briefly causes, clinical features, complications and management of Obesity.

(1+2+3+2+2 = 10 marks)

2. Define Anaemia. Discuss causes, clinical features and management of Iron deficiency Anaemia.

(1+3+3+3 = 10 marks)

3. Write short notes on any SIX of the following:

3A. Enteric fever.

3B. Osteoporosis.

3C. Diabetic foot ulcer.

3D. Filariasis.

3E. Pulmonary embolism.

3F. Congestive cardiac failure.

3G. Pulmonary function test.

3H. Organophosphorous poisoning.

(5×6 = 30 marks)

4. Write short notes on SIX of the following:

4A. Cerebral malaria.

4B. COPD.

4C. Acute pancreatitis.

4D. Rheumatic fever.

4E. Stroke.

4F. Hypovolumic shock.

4G. Vitamin B12 deficiency.

4H. Viper bite.

(5×6 = 30 marks)



MANIPAL UNIVERSITY
FOURTH YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2010
SUBJECT: SURGERY
(NEW REGULATION)
 Friday, December 17, 2010

Time: 10:00-13:00 Hrs

Maximum Marks: 80

✂ Answer Section "A" and Section "B" in TWO Separate Answer Books.

SECTION "A" : CARDIOVASCULAR AND THORACIC SURGERY : 40 MARKS

1. Enumerate the risk factors of coronary artery disease. Discuss in detail coronary artery bypass graft.

(10 marks)

2. Describe segmental anatomy of lungs. Describe evaluation of lung diseases and biopsy of lung tumours.

(10 marks)

3. Write short notes on any TWO:

3A. Discuss intercostal drainage and its indications.

3B. Discuss surgical management of peripheral vascular disease.

3C. Describe video assisted thoracoscopic surgery.

(10×2 = 20 marks)

SECTION "B" : GENERAL SURGERY : 40 MARKS

4. What is surgical stress response? Describe pathways of activation of stress response. Enumerate the metabolic sequelae of stress response. What are the features of Systemic inflammatory response syndrome (SIRS)?

(10 marks)

5. What are the clinical features of cholecystitis? Discuss surgical treatment and post-operative complications of cholecystitis.

(10 marks)

6. Write short notes on any FOUR:

6A. Give a few examples of adverse scars. Compare Hypertrophic and Keloid scars.

6B. Discuss types and clinical features of prolapse rectum.

6C. Discuss metabolic acidosis.

6D. Describe types of hernia.

6E. Discuss tracheostomy care.

6F. Discuss Conjunctivitis.

(5×4 = 20 marks)



MANIPAL UNIVERSITY

FOURTH YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2010

SUBJECT: COMMUNITY MEDICINE AND SOCIOLOGY
(NEW REGULATION)

Monday, December 20, 2010

Time 10:00-13:00 Hours

Maximum Marks: 80

✍ Answer ALL questions.

✍ Answer SECTION 'A' and SECTION 'B' in TWO separate answer books.

SECTION 'A': COMMUNITY MEDICINE : 40 MARKS

- 1A. What is balanced diet?
- 1B. What are the guidelines regarding planning of balanced diet?
- 1C. Discuss the prevention of Iodine deficiency disorders.

(2+3+5 = 10 marks)

2. Write short notes on:

- 2A. Causes of blindness.
- 2B. Complications of post natal period.
- 2C. Levels of disease prevention.
- 2D. Chain of disease transmission.
- 2E. Scope of rehabilitation in leprosy.
- 2F. Silicosis.

(5×6 = 30 marks)

SECTION 'B': SOCIOLOGY : 40 MARKS

3. Define sociology. Explain the need for studying sociology.
(2+8 = 10 marks)
4. What is family? Explain the influence of family on human personality.
(2+8 = 10 marks)
5. What is social change? What are the consequences of social change on human health?
(2+8 = 10 marks)
6. Write short notes on the following:
 - 6A. Explain the process of socialization.
 - 6B. What is social deseiance? Mention the types.

(5+(3+2) = 10 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2010****SUBJECT: PHYSIOTHERAPY IN CARDIOPULMONARY AND GENERAL CONDITIONS
(NEW REGULATION)**

Wednesday, December 22, 2010

Time: 10:00-13:00 Hrs

Maximum Marks: 80

Answer ALL questions.**1. Essay Questions:**

- 1A. Enumerate the pulmonary complications in abdominal surgeries. Discuss the post operative physiotherapy management of abdominal surgery.
- 1B. Discuss the physiotherapy management of chronic obstructive pulmonary diseases.

(10×2 = 20 marks)

2. Short Notes:

- 2A. Incentive spirometer exercises.
- 2B. Lymphedema management.
- 2C. Physiotherapy management of tetanus.
- 2D. Pulmonary function test changes in obstructive and restrictive lung diseases.
- 2E. Differences between adult and pediatric respiratory system.
- 2F. Physiotherapy management in conservatively managed burns.
- 2G. Physiotherapy treatment of peripheral vascular disease.
- 2H. Phase one cardiac rehabilitation for myocardial infarction.

(5×8 = 40 marks)

3. Brief Answers:

- 3A. Enlist the modes of mechanical ventilator.
- 3B. Enumerate the indications of oxygen therapy.
- 3C. What are the ECG changes in acute myocardial ischemia?
- 3D. What are the clinical implications of intracranial pressure?
- 3E. Mention any two effects of ultraviolet radiation on wounds.
- 3F. Describe the types of respiratory failure.
- 3G. What is PEEP?
- 3H. Mention any four complications of radiation therapy.
- 3I. Mention the chest x ray features of COPD.
- 3J. Mention the bronchopulmonary segments of right lower lobe.

(2×10 = 20 marks)



MANIPAL UNIVERSITY
FOURTH YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2010
SUBJECT: COMMUNITY BASED REHABILITATION
(NEW REGULATION)

Friday, December 24, 2010

Time: 10:00-13:00 Hrs

Maximum Marks: 80

✍ **Answer ALL questions.**

1. Essay Questions:

- 1A. What would be the role of a physiotherapist in a multidisciplinary community health team? Elucidate with the help of an example of a 25 year old male hemiplegic. (3+7 = 10 marks)
- 1B. Define aging. Explain the role of physiotherapist in Indian rural community dwelling elderly. (2+8 = 10 marks)

2. Short Notes:

- 2A. ICF classification.
- 2B. Benefits of PWD Act in India.
- 2C. Home modification for a housewife with Parkinson's disease.
- 2D. Explain any five theories of aging.
- 2E. Principles of work hardening and conditioning.
- 2F. Exercise prescription in pregnant women.
- 2G. Early Intervention.
- 2H. CTD in construction workers.

(5×8 = 40 marks)

3. Brief Answers:

- 3A. Mention any two guidelines for formation of a new CBR program.
- 3B. Functional Capacity Evaluation.
- 3C. Diastasis recti.
- 3D. Mention any two factors determining the prescription of assistive devices.
- 3E. Mention any two agencies involved in CBR for physically disabled in India.
- 3F. Mention any four nervous system changes with aging.
- 3G. Mention any two features of disabled friendly environment in public transport.
- 3H. Care of anaesthetic feet.
- 3I. Mention any two components of Tool Analysis.
- 3J. Mention any four common musculoskeletal and soft tissue injuries in sports.

(2×10 = 20 marks)



MANIPAL UNIVERSITY

FOURTH YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2010

**SUBJECT: EXERCISE PHYSIOLOGY AND ELECTRODIAGNOSIS
(NEW REGULATION)**

Monday, December 27, 2010

Time: 10:00-13.00 Hrs

Maximum Marks: 80

- ✗ Answer both section – A and section – B in same answer book.
✗ Answer all questions.

SECTION – A : EXERCISE PHYSIOLOGY

1. Long Answer:

Write in detail the role of ergogenic aids in sports performance.

(10 marks)

2. Brief Answers:

- 2A. Write in brief about oxygen deficit and oxygen debt with diagram.
2B. Write the treatment methods to prevent bed rest complications.
2C. Write the principles for aerobic training.
2D. What are the cardiovascular benefits of endurance training?

(5×4 = 20 marks)

3. Short Notes:

- 3A. Define microgravity.
3B. Write the tests used to measure anaerobic power.
3C. Write the energy values for Fat and Carbohydrates.
3D. Define anaerobic threshold.
3E. Define agility.

(2×5 = 10 marks)

SECTION – B: ELECTRODIAGNOSIS

4. Long Answer:

Write the nerve conduction study principles. Describe the median motor nerve conduction procedure and its normal values.

(5+3+2 = 10 marks)

5. Brief Answers:

- 5A. Draw and explain the panel diagram in electro diagnostic study.
5B. Write the physiological properties of nerve.
5C. Describe the methods and uses of 'H' reflex.
5D. Write indication and the uses of EMG biofeedback.

(5×4 = 20 marks)

6. Short Notes:

- 6A. Define blink reflex.
6B. Define neurotomesis.
6C. Define chronaxie.
6D. Write the stages of EMG activity.
6E. Define axon reflex.

(2×5 = 10 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2010****SUBJECT: ETHICS/ADMINISTRATION AND TEACHING SKILLS
(NEW REGULATION)**

Wednesday, December 29, 2010

Time: 10:00-11.30 Hrs

Maximum Marks: 40

✍ Answer ALL questions.**1. Essay Questions:**

Detail the WCPT and IAP guidelines for Physiotherapy practice.

(10 marks)

2. Short Notes:

2A. Documentation in Physiotherapy practice.

2B. Planning a physiotherapy department in established 100 bedded hospital in rural setup.

2C. Legal issues in physiotherapy practice.

2D. Procedure for equipment procurement.

(5×4 = 20 marks)

3. Brief Answers:

3A. Mention any two rules.

3B. Mention any purposes of consumer act.

3C. Any two ethical issues in physiotherapy practice.

3D. Any two important principles of public education.

3E. Minimum requirements to start Physiotherapy clinic.

(2×5 = 10 marks)

