

MANIPAL UNIVERSITY**FOURTH YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2007****SUBJECT: EXERCISE PHYSIOLOGY AND ELECTRODIAGNOSIS****(NEW REGULATION)**

Saturday, December 15, 2007

Time available: 3 Hours

Maximum Marks: 80

✍ Answer both section – A and section – B in same answer book.

✍ Answer all questions.

SECTION – A : ELECTROPHYSIOLOGY : 40 Marks

✍ Essay

1. Explain the procedure for EMG examination and discuss the normal findings.

(10 marks)

✍ Short notes:

2A. Classification of nerve lesions

2B. H Reflex

2C. Parameters of Motor unit study

2D. Merits and Demerits of NCV on comparison with FG test and SD curve.

(4×5 = 20 marks)

✍ Brief Answers:

3A. Resting membrane potential

3B. Orthodromic conduction

3C. EMG findings in myopathy

3D. F wave latency

3E. Gain

(5×2 = 10 marks)

SECTION – B : EXERCISE PHYSIOLOGY : 40 Marks

✍ Essay:

4. Classify ergogenic aids and explain in brief the potential benefits and adverse effects of any four ergogenic aid.

(2+8 = 10 marks)

✍ Short Notes:

(4×5 = 20 marks)

5A. Potential hazards of hyperbaric environment

5B. Classify exercise testing and discuss the advantages and disadvantages of the same

5C. Metabolic adaptations to training

5D. Physiological basis of oxygen deficit and debt.

✍ Brief Answers

(2×5 = 10 marks)

6A. What is cross training?

6B. Name the oxidative enzymes that were found to increase with endurance training

6C. What is respiratory exchange ratio?

6D. Define agility

6E. What is aerobic exercise?



MANIPAL UNIVERSITY**FOURTH YEAR B.P.T DEGREE EXAMINATION – DECEMBER 2007****SUBJECT: RESEARCH METHODOLOGY AND BIOSTATISTICS
(NEW REGULATION)**

Monday, December 17, 2007

Time: 3 Hrs.

Max. Marks: 80

1. State the role of statistics in health science with example. (5 marks)
2. Explain Qualitative and Quantitative characteristics with example. (5 marks)
3. Explain the meaning of dependent and independent variables in research with example. (5 marks)
4. Give an example where Stratified random sampling is suitable. List any two advantages of Stratified random sampling over simple random sampling. (5 marks)
5. Describe the construction of a Pie diagram with example. (5 marks)
6. Explain exclusive and inclusive type class interval with example. (5 marks)
7. The following are the fasting blood glucose levels of 10 children. Blood glucose level in mg/dl
56 61 57 77 62 75 63 55 64 60. Compute mean and median (5 marks)
8. Mean and standard deviation of Pulse rate of a group of individuals is 76 and 3 beats per minute and that of height is 64 and 2 inches. Which of the two characteristic shows more variation? (5 marks)
9. If scores are normally distributed with a mean of 25 and a standard deviation of 5, what percent of the scores is between 20 and 35? (5 marks)

10. Explain the study of correlation with 'Scatter Diagram'.
(5 marks)
11. Enumerate the uses of health information system. List any four sources of health information system.
(5 marks)
12. Differentiate Incidence and Prevalence.
(5 marks)
13. During the year 2006, there were 200 deaths in a town. The estimated mid-year population for 2006 was 30300. Calculate the crude death rate. What are the limitations of crude death rate?
(3+2 = 5 marks)
14. Define Epidemiology. What is Descriptive epidemiology? State its uses.
(2+5+3 = 10 marks)
15. What is a Hypothesis? What are the characteristics of a good hypothesis?
(1+4 = 5 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2007****SUBJECT: ETHICS/ADMINISTRATION AND TEACHING SKILLS
(NEW REGULATION)**

Tuesday, December 18, 2007

Time available: 1½ Hours

Maximum Marks: 40

✍ Answer ALL questions.**✍ Essay:**

1. Explain the steps involved in setting private physiotherapy clinics in a district center in India.
(10 Marks)

✍ Short notes:

- 2A. Informed consent.
2B. Consumer Protection Act.
2C. Role of documentation in Physiotherapy practice.
2D. Steps to fund raising programme for poor patients.

(5×4 = 20 Marks)

✍ Brief answers:

- 3A. What are the legal requirements for independent practice of physiotherapy in India?
3B. Therapist risk due to home visits.
3C. Drawbacks of equipment procurement through an agency.
3D. Who is consumer of service according to Consumer Protection Act?
3E. What is medical negligence?

(2×5=10 Marks)

