

MANIPAL UNIVERSITY**FOURTH YEAR B.P.T. DEGREE EXAMINATION – MAY/JUNE 2013****SUBJECT: MEDICINE
(COMMON FOR 2008, 2009 AND OLD REGULATION)**

Monday, May 27, 2013

Time: 10:00 – 13:00 Hrs

Maximum Marks: 80

1. Discuss clinical features, diagnosis and treatment of pulmonary tuberculosis.
(4+2+4 = 10 marks)

2. **Write short notes on any SIX of the following:**
 - 2A. Clinical features of pulmonary embolism
 - 2B. Haemophilia
 - 2C. Treatment of chronic gastritis
 - 2D. Clinical features of Mitral stenosis
 - 2E. Cardiac arrest and CPR
 - 2F. Acute hepatitis A
 - 2G. Metabolic Acidosis
 - 2H. Pneumothorax

(5×6 = 30 marks)

3. What is multiple Myeloma? Describe its clinical features and management.
(2+4+4 = 10 marks)

4. **Write short notes on any SIX of the following:**
 - 4A. Clinical features of Typhoid
 - 4B. Staging of lymphomas
 - 4C. Differential diagnosis of jaundice
 - 4D. Causes of Aortic Regurgitation
 - 4E. Clinical features of Hyperparathyroidism
 - 4F. Chronic Obstructive Pulmonary Disease
 - 4G. Acute Bacterial Pneumonia
 - 4H. Acromegaly

(5×6 = 30 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.P.T. DEGREE EXAMINATION – MAY/JUNE 2013****SUBJECT: SURGERY/GENERAL SURGERY
(2008/2009 REGULATION/OLD REGULATION)**

Wednesday, May 29, 2013

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. Discuss the aetiology, clinical features and management of pneumothorax. Add a note on care of intercostal drainage tube.
(10 marks)
2. Discuss Rheumatic heart disease. Discuss surgical options for management of valvular heart disease.
(10 marks)
3. **Write short notes on any TWO:**
 - 3A. Discuss various types of Diaphragmatic hernia.
 - 3B. Discuss causes of lung abscess, its diagnosis and management.
 - 3C. Discuss surgical management of peripheral vascular disease.
(10×2 = 20 marks)

SECTION B: GENERAL SURGERY (40 MARKS)

4. Enumerate indications for blood transfusion. Describe grouping and cross-matching. Add a note on blood fractions used for transfusion. List a few complications of blood transfusion.
(10 marks)
5. Define and classify wounds. Discuss the process of wound healing. Describe the phases of scar formation and add a note on ideal scar.
(10 marks)
6. **Write short notes on any FOUR:**
 - 6A. Describe surgical management of BPH and its post-operative complications.
 - 6B. Write a short note on otitis media.
 - 6C. Discuss Glaucoma.
 - 6D. Discuss indications and complications of neck dissection.
 - 6E. Discuss Modified radical mastectomy.
(5×4 = 20 marks)



MANIPAL UNIVERSITY

FOURTH YEAR B.P.T DEGREE EXAMINATION – MAY/JUNE 2013

**SUBJECT: RESEARCH METHODOLOGY AND BIOSTATISTICS
(COMMON FOR 2008, 2009 AND OLD REGULATION)**

Friday, May 31, 2013

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. What is meant by research? (5 marks)

2. Write a note on construct validity. (5 marks)

3. Explain nominal and ordinal variables with examples. (5 marks)

4. Classify the following into different scales of measurements (Nominal, Ordinal, Interval and Ratio). (5 marks)
 - 4A. Weight
 - 4B. Temperature (°K)
 - 4C. Stages of Cancer
 - 4D. IQ
 - 4E. Telephone number

5. How is Snowball sampling carried out? What are its merits and demerits? (5 marks)

- 6A. Construct a pie chart for the following data:

Blood Group	O	A	B	AB
Number of persons	120	45	135	60

- 6B. Following are Serum cholesterol (mmol/L) levels measured on a sample of 45 stroke patients. Construct frequency table along with relative frequencies using the class intervals, 3.0 – 4.0, 4.0 – 5.0, 5.0 – 6.0, so on

3.7	4.8	5.4	5.7	6.3	6.8	7.4	7.8	8.9
3.8	4.9	5.5	5.9	6.4	6.8	7.5	8.2	9.3
4.5	5.1	5.5	6.0	6.4	7.0	7.5	8.3	9.5
4.7	5.2	5.6	6.1	6.5	7.2	7.6	8.6	10.2
4.8	5.3	5.6	6.2	6.7	7.3	7.7	8.7	10.4

(5+5 = 10 marks)

7. The following data provides hemoglobin level of 15 patients who visited a clinic. Calculate mean, range, standard deviation and coefficient of variation.
- | | | | | | | | |
|----|----|----|----|----|----|----|----|
| 12 | 15 | 13 | 19 | 17 | 10 | 11 | 14 |
| 20 | 17 | 19 | 15 | 9 | 14 | 9 | |
- (10 marks)
8. Given the mean and standard deviation of weight of new born babies are 2.8 kg and 0.5 kg respectively. Assuming normality estimate the percentage of newborns with weight.
- 8A. More than 2.3 kg
- 8B. Between 2.3 kg and 3.8 kg
- (5 marks)
9. With the help of scatter diagram, explain correlation.
- (5 marks)
10. Discuss hospital records as a source of health information system.
- (5 marks)
11. **Define:**
- 11A. Maternal mortality rate
- 11B. Infant mortality rate
- 11C. Perinatal mortality rate
- 11D. Post neonatal mortality rate
- 11E. Neonatal mortality rate
- (10 marks)
12. Describe case series and cross sectional study designs.
- (10 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.P.T. DEGREE EXAMINATION – MAY/JUNE 2013****SUBJECT: PHYSIOTHERAPY IN CARDIOPULMONARY AND GENERAL CONDITIONS
(COMMON FOR 2008, 2009 AND OLD REGULATION)**

Monday, June 03, 2013

Time: 10:00-13:00 Hrs

Maximum Marks: 80

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

- 1A. Write in detail about the components of pulmonary rehabilitation relevant to physiotherapy.
- 1B. Explain the physiological changes associated with supine, prone and half lying positions.
(10×2 = 20 marks)

2. Write short notes on:

- 2A. Write in detail about how risk stratification is performed on cardiac patients based on the results of exercise tests.
- 2B. Write in brief about the continuous mandatory ventilation (CMV) and Synchronized Intermittent Mandatory Ventilation (SIMV) modes of mechanical ventilation.
- 2C. Write in brief about the various modes of oxygen delivery and the physical principles governing each.
- 2D. What are the physiologic benefits of early mobilization?
- 2E. Enumerate the aerosol generators and write a brief note on two types of generators.
- 2F. Enlist precautions while performing endotracheal suctioning.
- 2G. Write in brief about non invasive monitoring parameters relevant to Physiotherapists.
- 2H. Write in brief about the potential complications relevant to physiotherapists that can be prevented in the early post operative days of patients undergoing upper abdominal surgeries.
(5×8 = 40 marks)

3. Brief answer questions:

- 3A. What is Laplace Law?
- 3B. What is Isothermic saturation boundary?
- 3C. What is compliance of the lung?
- 3D. What is oxygen toxicity?
- 3E. What are the criteria to diagnose respiratory failure?
- 3F. What are the complications of radiation therapy relevant to Physiotherapists?
- 3G. What is an equal pressure point?
- 3H. Name the muscles of inspiration.
- 3I. What is a silhouette sign?
- 3J. What is the optimal rate and depth of chest compressions delivered on an adult during cardio pulmonary resuscitation?
(2×10 = 20 marks)



MANIPAL UNIVERSITY
FOURTH YEAR B.P.T. DEGREE EXAMINATION – MAY/JUNE 2013
SUBJECT: COMMUNITY BASED REHABILITATION
(COMMON FOR 2008 AND OLD REGULATION)

Wednesday, June 05, 2013

Time: 10:00-13:00 Hrs

Maximum Marks: 80

✍ **Answer ALL questions.**

1. Essay questions:

- 1A. Explain the pathophysiology of type II diabetes. Elaborate an exercise based intervention program for the management of type II diabetes.
- 1B. Describe the physiological changes during pregnancy. What are the effects of various endocrinological changes during pregnancy on the musculo-skeletal system?

(10×2 = 20 marks)

2. Write short notes on:

- 2A. Disability evaluation for upper limb amputations
- 2B. Principles of exercise prescription in obesity
- 2C. Elaborate the guidelines for safe lifting practices
- 2D. Physiotherapy management in bladder prolapse
- 2E. Exercise prescription for adolescent female athlete
- 2F. Role of multipurpose health worker in CBR
- 2G. Disability evaluation in lower limb amputations
- 2H. Compare and contrast work hardening and work conditioning

(5×8 = 40 marks)

3. Brief answer questions:

- 3A. Any two components of a job analysis
- 3B. Mention two age related changes in muscles seen in elderly
- 3C. Mention any two occupational hazards
- 3D. Name two orthotic devices used for upper limb
- 3E. Principles of foot care in diabetes
- 3F. Name two physiotherapy modalities that can be used for wound healing
- 3G. Define activity limitation
- 3H. Mention two principles of CBR
- 3I. Name any three secondary team members in a rehabilitation team
- 3J. Name two childhood orthopedic conditions pertaining to lower extremity

(2×10 = 20 marks)



MANIPAL UNIVERSITY
FOURTH YEAR B.P.T. DEGREE EXAMINATION – MAY/JUNE 2013
SUBJECT: COMMUNITY PHYSIOTHERAPY
(2009 BATCH)

Wednesday, June 05, 2013

Time: 10:00-13:00 Hrs

Maximum Marks: 80

☞ **Answer ALL questions.**

1. Essay questions:

- 1A. Explain the pathophysiology of type II diabetes. Elaborate an exercise based intervention program for the management of type II diabetes.
- 1B. Describe the physiological changes during pregnancy. What are the effects of various endocrinological changes during pregnancy on the musculo-skeletal system?

(10×2 = 20 marks)

2. Write short notes on:

- 2A. Disability evaluation for upper limb amputations
- 2B. Principles of exercise prescription in obesity
- 2C. Elaborate the guidelines for safe lifting practices
- 2D. Physiotherapy management in bladder prolapse
- 2E. Exercise prescription for adolescent female athlete
- 2F. Role of multipurpose health worker in CBR
- 2G. Disability evaluation in lower limb amputations
- 2H. Compare and contrast work hardening and work conditioning

(5×8 = 40 marks)

3. Brief answer questions:

- 3A. Any two components of a job analysis
- 3B. Mention two age related changes in muscles seen in elderly
- 3C. Mention any two occupational hazards
- 3D. Name two orthotic devices used for upper limb
- 3E. Principles of foot care in diabetes
- 3F. Name two physiotherapy modalities that can be used for wound healing
- 3G. Define activity limitation
- 3H. Mention two principles of CBR
- 3I. Name any three secondary team members in a rehabilitation team
- 3J. Name two childhood orthopedic conditions pertaining to lower extremity

(2×10 = 20 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.P.T. DEGREE EXAMINATION – MAY/JUNE 2013****SUBJECT: EXERCISE PHYSIOLOGY AND ELECTRODIAGNOSIS
(COMMON FOR 2008, 2009 AND OLD REGULATION)**

Friday, June 07, 2013

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**✍ Essay questions:**

1. Explain the acute responses of cardiovascular system following aerobic training in sedentary man.

(10 marks)

2. Write short notes on:

- 2A. What are the effects of exercise on different system in elderly?
2B. Different methods for analyzing body composition in athletes.
2C. Glycogen loading and its importance in sports
2D. What is the role of hormones on fluid and electrolyte balance during exercise.

(5×4 = 20 marks)

3. Brief notes:

- 3A. $\dot{V}O_2$ max
3B. Lactate threshold
3C. What is endurance exercise?
3D. What are Buffers?
3E. Blood supply of myocardium

(2×5 = 10 marks)

SECTION – B : ELECTRODIAGNOSIS**✍ Essay questions:**

4. Explain about the general principles of sensory nerve conduction study. Discuss also about antidromic SNCS with an example.

(10 marks)

5. Write short notes on:

- 5A. Surface electrodes
5B. Compare between traditional test like SD curve or F.G. test with ENMG

5C. EMG Biofeedback for neurological rehabilitations

5D. Blink response studies

(5×4 = 20 marks)

6. **Brief notes:**

6A. What is sweep?

6B. What is notch or a.c filter?

6C. What are Myokinic potentials?

6D. Mention any two features of Concentric needle electrodes.

6E. Define chronaxie.

(2×5 = 10 marks)



MANIPAL UNIVERSITY

FOURTH YEAR B.P.T. DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: ETHICS/ADMINISTRATION AND TEACHING SKILLS
(OLD REGULATION)

Monday, June 10, 2013

Time: 10:00-11.30 Hrs

Maximum Marks: 40

✍ Answer ALL questions.

1. Essay question:

- 1A. Elaborate the basic principles of ethical health care delivery. Describe with an example, when adherence to one principle may contradict the practice of another.

(10 marks)

2. Short notes:

- 2A. State five basic requirements of setting up a physiotherapy clinic in a tertiary care set up.
2B. State three ethical issues in regards to medical management of cases who are HIV positive.
2C. State four basic requirements for an educational institution to be recognized by and affiliated to IAP.
2D. List the purposes of documentation in medical practice.

(5×4 = 20 marks)

3. Brief notes:

- 3A. List two modes of documentation
3B. Name two organizations that fund medical research
3C. Two WCPT guidelines for ethical practice
3D. What is staff morale?
3E. Medical negligence

(2×5 = 10 marks)



