1.  What is Bronchial Asthma? Discuss in detail about Bronchial Asthma. Add a note on Acute Severe Asthma.

    $(1+7+2 = 10 \text{ marks})$

2.  What is obesity? Discuss aetiopathogenesis, complications and management of Obesity.

    $(1+2+4+3 = 10 \text{ marks})$

**3. Write short note on any SIX of the following:**

3A. Acute glomerulonephritis

3B. Clinical features in acute myocardial infarction (AMI).

3C. Diabetic ketoacidosis.

3D. Hyperthyroidism.

3E. Hepatic encephalopathy.

3F. Typhoid fever.

3G. Iron deficiency anaemia.

3H. Liver function tests.

$(5×6 = 30 \text{ marks})$

**4. Write short note on any SIX of the following:**

4A. Food poisoning.

4B. Malaria.

4C. Mitral regurgitation.

4D. Hemophilia.

4E. Snake bite.

4F. Metabolic acidosis.

4G. Complications of systemic hypertension.

4H. Arterial blood gas analysis (ABG).

$(5×6 = 30 \text{ marks})$

# MANIPAL UNIVERSITY

## FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009

### SUBJECT: MEDICINE
### (NEW REGULATION)

Monday, June 08, 2009

Time: 10:00-13:00 Hrs                                    Maximum Marks: 80

1.  What is Bronchial Asthma?  Discuss in detail about Bronchial Asthma.  Add a note on Acute Severe Asthma.

(1+7+2 = 10 marks)

2.  What is obesity?  Discuss aetiopathogenesis, complications and management of Obesity.

(1+2+4+3 = 10 marks)

3.  **Write short note on any SIX of the following:**

3A.  Acute glomerulonephritis

3B.  Clinical features in acute myocardial infarction (AMI).

3C.  Diabetic ketoacidosis.

3D.  Hyperthyroidism.

3E.  Hepatic encephalopathy.

3F.  Typhoid fever.

3G.  Iron deficiency anaemia.

3H.  Liver function tests.

(5×6 = 30 marks)

4.  **Write short note on any SIX of the following:**

4A.  Food poisoning.

4B.  Malaria.

4C.  Mitral regurgitation.

4D.  Hemophilia.

4E.  Snake bite.

4F.  Metabolic acidosis.

4G.  Complications of systemic hypertension.

4H.  Arterial blood gas analysis (ABG).

(5×6 = 30 marks)

# MANIPAL UNIVERSITY
## FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009
### SUBJECT: SURGERY
### (NEW REGULATION)
Tuesday, June 09, 2009

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 evaluation and surgical management of chest trauma. Discuss role of intercostal drainage in chest trauma.

(10 marks)

2.  Describe anatomy of heart. Describe in detail cyanotic and acyanotic congenital heart disease.

(10 marks)

3.  **Write short notes on any TWO:**

3A. Discuss Ventricular septal defect.

3B. Discuss surgical management of bronchiectasis.

3C. Discuss coronary artery bypass surgery.

(10×2 = 20 marks)

## SECTION "B" : GENERAL SURGERY : 40 MARKS

4.  Elaborate on aetiology and clinical features of peptic ulceration. Discuss management of peptic ulcers with a note on eradication therapy.

(10 marks)

5.  Discuss Benign prostatic hypertrophy. Describe surgical management of BPH and its post-operative complications.

(10 marks)

6.  **Write short notes on any FOUR:**

6A. Discuss Hyperkalaemia.

6B. Discuss clinical features and management of incisional hernia.

6C. Write a short note on otitis media.

6D. Discuss Conjunctivitis.

6E. Discuss management of carcinoma oesophagus.

(5×4 = 20 marks)

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# MANIPAL UNIVERSITY

## FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009

### SUBJECT: COMMUNITY MEDICINE AND SOCIOLOGY
### (NEW REGULATION)

Wednesday, June 10, 2009

Time available: 3 Hours                                                              Maximum Marks: 80

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

## SECTION 'A': COMMUNITY MEDICINE : 40 MARKS

1.  What are the risk factors for Cerebral stroke? Discuss how do you develop a Community based rehabilitation program for them?

$(3+7 = 10$ marks$)$

2.  Discuss different modes of disease transmission.

$(10$ marks$)$

3.  Write short notes on:

3A. Family planning methods (only enumerate).

3B. Vitamin A Prophylaxis for children under three years of age.

3C. Discuss the components of Iodine deficiency disorders control program.

3D. Enumerate different types of hospital waste disposal technologies.

$(5×4 = 20$ marks$)$

## SECTION 'B': SOCIOLOGY : 40 MARKS

✍ **Answer ALL questions.**

4.  Define family. Explain the role of family on human health.

$(2+8 = 10$ marks$)$

5.  What is urban community? Explain its role in public health.

$(2+8 = 10$ marks$)$

6.  What is caste? Explain the features of modern caste system.

$(2+8 = 10$ marks$)$

7.  Write short notes on the following:

7A. The role of medical social worker.

7B. How does social change cause deseiance?

$(5+5 = 10$ marks$)$

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# MANIPAL UNIVERSITY

## FOURTH YEAR B.P.T DEGREE EXAMINATION – JUNE 2009

### SUBJECT: RESEARCH METHODOLOGY AND BIOSTATISTICS
### (NEW REGULATION)

Thursday, June 11, 2009

Time: 10:00-13:00 Hrs.                                      Max. Marks: 80

✍  **Answer ALL questions:**

1A.  List the limitations of statistics.

1B.  Define variable. Mention the different types of variables with an example for each.

(5+5 = 10 marks)

2A.  Enumerate the properties of the different scales of measurement with example for each of them.

2B.  Classify the following data into a frequency distribution using class intervals 120-129, 130-139, etc.

254, 182, 180, 198, 222, 165, 220, 232, 214, 218, 169, 191, 251, 188, 210, 188, 190, 187, 194, 187, 194, 222, 201, 195, 191, 213, 187, 124, 206, 195, 192, 235, 135, 151, 134, 206, 227, 175, 252, 172, 204, 199, 173, 240, 239, 204, 218, 175, 234, 205.

Draw a frequency polygon for the distribution.

(5+5 = 10 marks)

3.  What is meant by probability sampling methods? Compare and contrast between simple random sampling and stratified sampling methods. Discuss the use of random number tables in the selection of probability samples.

(1+6+3 = 10 marks)

4A.  Explain the concept of dispersion in statistical analysis. Describe its various measures and discuss their merits and demerits.

4B.  Twenty people were asked to perform a certain task. The time in seconds required for each person to complete the task was recorded. The following observations were recorded.

63, 65, 64, 65, 67, 60, 63, 67, 62, 68, 66,121, 70, 72, 76, 80, 82, 88, 75, 77

Calculate the mean, median and mode.

4C.  Suppose the ages at the time of onset of a certain hearing disorder are approximately normally distributed with a mean of 11.5 years and a standard deviation of 3 years. A child has just come down with the disorder. What is the probability that the child is

i)    Between the age of 8.5 and 14.5 years?

ii)   Over 17.5 years?

iii)  Under 5.5 years?

((1+9)+5+5 = 20 marks)

5A. Define health information system. What are the components of health information system (HIS)? Enumerate the uses of HIS. Briefly describe the sample registration system as a source of HIS.

5B. The population of a town was estimated to be 80,000 for the year 2006. In the same year the number of births was recorded to be 1600. There were 720 deaths in the village during the same year. Calculate the birth and death rates.

$$((1+2+3+4)+5 = 15 \text{ marks})$$

6A. Discuss the concepts of health and disease.

6B. Give the definition of epidemiology. What are the aims of epidemiology?

6C. What is meant by hypothesis? Enlist any four characteristics of hypothesis.

$$(5+5+5 = 15 \text{ marks})$$

# MANIPAL UNIVERSITY

## FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009

### SUBJECT: PHYSIOTHERAPY IN CARDIOPULMONARY AND GENERAL CONDITIONS
### (NEW REGULATION)

Friday, June 12, 2009

Time: 10:00-13:00 Hrs                                               Maximum Marks: 80

✍  **Answer ALL questions.**

1.    **Essay Questions:**

1A.   Define pulmonary rehabilitation. List pulmonary rehabilitation team members. Explain the components of pulmonary rehabilitation.

(2+2+6 = 10 marks)

1B.   List the normal physiological bronchial clearance mechanisms. Explain the following bronchial hygiene therapy techniques
      i)      Directed coughing
      ii)     Forced expiratory technique
      iii)    Active cycles of breathing technique

(10 marks)

2.    **Write short notes on:**

2A.   Explain the different oxygen delivery system.

2B.   Short note on pass over humidifiers.

2C.   Short note on any TWO neurophysiologic facilitation of breathing techniques.

2D.   Brief the post operative physiotherapy management in pneumonectomy.

2E.   Explain any TWO treadmill testing protocols.

2F.   Differentiate CPAP and PEEP.

2G.   Physiotherapy management of patients on mechanical ventilator.

2H.   Rationale for inspiratory muscle training in COPD.

(5×8 = 40 marks)

3.    **Brief Answers:**

3A.   Calculation of desired $F_iO_2$ (Fraction of inspired oxygen).

3B.   Types of heat moisture exchange units.

3C.   Define barotrauma.

3D.   Any four sub maximal exercise testing methods.

3E.   Mention the phases of cardiac rehabilitation.

3F.   Two absolute and relative contraindications for postural drainage.

3G.   Grades of clubbing.

3H.   Zone of apposition.

3I.   Any four complications of endotracheal suctioning

3J.   Define ABI.

(2×10 = 20 marks)

# MANIPAL UNIVERSITY
## FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009
### SUBJECT: COMMUNITY BASED REHABILITATION
(NEW REGULATION)

Monday, June 15, 2009

Time: 10:00-13:00 Hrs                                               Maximum Marks: 80

1.    **Essay questions:**

1A.   Describe in detail the processes of job analysis and work hardening.

1B.   i)    Define barrier modification and detail the architectural necessities to facilitate the public transportation of wheel chair dependent patients.

ii)   Role of family members and social worker in rehabilitation of chronic disabled person.

(10×2 = 20 marks)

2.    **Short notes:**

2A.   Physiotherapy management of hypertension.

2B.   Physiotherapy management of complications of labor.

2C.   Changes in cardio respiratory system with ageing.

2D.   Role of physiotherapists in community based rehabilitation.

2E.   Physiotherapy role in early intervention of high risk infants.

2F.   Physiotherapy for bladder prolapse.

2G.   Principles of ergonomic evaluation.

2H.   Principle of exercise prescription in type II diabetes melitus.

(5×8 = 40 marks)

3.    **Brief answers:**

3A.   Multipurpose health worker.

3B.   Nutrition during competitive phase of sports.

3C.   Any four theories of ageing.

3D.   Components of workers education.

3E.   Principles of exercise training.

3F.   Ergonomics of visual display unit.

3G.   BMI.

3H.   Diastasis recti.

3I.   Exercise prescription in puberty.

3J.   Any two adaptations in muscles with exercises in elderly population.

(2×10 = 20 marks)

# MANIPAL UNIVERSITY
## FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009
### SUBJECT: EXERCISE PHYSIOLOGY AND ELECTRODIAGNOSIS
#### (NEW REGULATION)
Tuesday, June 16, 2009

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

1.  **Essay questions:**

   Mention the stages in EMG study. Explain the normal and abnormal activity during rest.
   (2+4+4 = 10 marks)

2.  **Short notes:**

2A.  Types of EMG electrodes.
2B.  Discuss normal motor unit potential.
2C.  Write indications, contraindications and clinical use of FG test.
2D.  EMG biofeedback in physiotherapy.

   (5×4 = 20 marks)

3.  **Brief Answers:**

3A.  Define rheobase.
3B.  Define axonotomesis.
3C.  Orthodromic conduction.
3D.  What is motor unit?
3E.  Resting membrane potential.

   (2×5 = 10 marks)

## SECTION – B

4.  **Essay questions:**

   Discuss the effect of prolonged bed rest on different systems.

   (10 marks)

5.  **Short notes.**

5A.  Thermoregulatory control during exercise in hot environment.
5B.  Metabolic adaptations to training.
5C.  Management of fatigue.
5D.  Special considerations for exercise in children.

   (5×4 = 20 marks)

6.  **Brief Answers:**

6A.  Name four ergogenic aids.
6B.  Define power.
6C.  What is oxygen debt?
6D.  Chronic changes to exercise in muscle.
6E.  Cardiovascular drift.

   (2×5 = 10 marks)

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# MANIPAL UNIVERSITY

## FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009

### SUBJECT: ETHICS/ADMINISTRATION AND TEACHING SKILLS
### (NEW REGULATION)

Wednesday, June 17, 2009

Time: 10:00-11.30 Hrs                                                        Maximum Marks: 40

1.  **Essay Question:**

    Explain in details the ethical principles in clinical research. Describe the ethical issues and challenges in independent physiotherapy practice.

    (10 marks)

2.  **Short Notes:**

2A.  Describe the elements of informed consent.

2B.  Short notes on types of documentation.

2C.  Brief note on consumer protection act.

2D.  Ethical issues on placebo treatment.

    (5×4 = 20 marks)

3.  **Brief Answers:**

3A.  What is ICMR Code.

3B.  Medical negligence.

3C.  Physical restraints.

3D.  Define confidentiality.

3E.  Distributed justice.

    (2×5 = 10 marks)

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