

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE/JULY 2006**(NEW REGULATION)****SUBJECT: MEDICINE**

Thursday, June 29, 2006

Time available: 3 Hours

Maximum Marks: 80

Answer all questions.

1. What is Diabetes Mellitus? Discuss aetiopathogenesis, complications and management of diabetes mellitus.
(1+2+4+3 = 10 marks)
2. Define cirrhosis of liver. Discuss aetiology, clinical features, complications and management of cirrhosis of liver.
(1+2+3+2+2 = 10 marks)
3. Write short notes on any **SIX** of the following:
 - 3A. Acute severe asthma.
 - 3B. Infective endocarditis.
 - 3C. Megaloblastic anaemia.
 - 3D. Cholera.
 - 3E. Ankylostomiasis.
 - 3F. Opportunistic infection in A.I.D.S.
 - 3G. Marasmus and Kwashiorkor.
 - 3H. Hyperparathyroidism.(5×6 = 30 marks)
4. Write short notes on any **SIX** of the following:
 - 4A. Complications of obesity.
 - 4B. Mitral stenosis.
 - 4C. Organophosphorous compound poisoning.
 - 4D. Addison's disease.
 - 4E. Pneumothorax.
 - 4F. Pulmonary function tests.
 - 4G. Immune thrombocytopenic purpura (ITP).
 - 4H. Osteomalacia.(5×6 = 30 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION

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FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE 2006**SUBJECT: SURGERY
(NEW REGULATION)**

Friday, June 30, 2006

Time available: 3 Hours

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 Lung Abscess. (10 marks)
2. What are the indications for pneumonectomy? Discuss the postoperative physiotherapy and physiological changes occurring after pneumonectomy. (10 marks)
3. Write short notes on any **TWO**:
 - 3A. Patent ductus arteriosus.
 - 3B. Fibro optic bronchoscopy.
 - 3C. Risk factors in Coronary Artery Disease.(10×2 = 20 marks)

SECTION "B": GENERAL SURGERY: 40 MARKS

4. Classify hemorrhage. Discuss the methods used to arrest hemorrhage. (10 marks)
5. What the factors affecting wound healing? Enumerate the complications of wound healing. (10 marks)
6. Write short notes on any **FOUR**:
 - 6A. Principles and types of abdominal incision.
 - 6B. Septic shock.
 - 6C. Non healing sinus factors.
 - 6D. Massive blood transfusion.
 - 6E. Incisional Hernia.(5×4 = 20 marks)



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FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE/JULY 2006**SUBJECT: SOCIOLOGY AND COMMUNITY MEDICINE****(NEW REGULATION)**

Saturday, July 01, 2006

Time available: 3 Hours

Maximum Marks: 80

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

SECTION 'A': SOCIOLOGY: 40 MARKS

1. Why is sociology called a science? Explain its uses in physiotherapy. (3+7 = 10 marks)
2. Explain the problems of women in employment. (10 marks)
3. Explain how social control helps to improve human health. (10 marks)
4. Write short notes on the following:
 - 4A. Family disorganization.
 - 4B. Life style and health.
 (5×2 = 10 marks)

SECTION 'B': COMMUNITY MEDICINE: 40 MARKS

5. Discuss the possible deformities and disabilities in Leprosy. Briefly mention the rehabilitation measures for leprosy patients. (5+5 = 10 marks)
6. Write short notes on:
 - 6A. Food hygiene. (5 marks)
 - 6B. Mention advantages and disadvantages of the oral contraceptive pills. (5 marks)
 - 6C. Roll of arthropods in the transmission of communicable diseases. (5 marks)
 - 6D. What is meant by natural history of the disease? Outline the phases. (2+3 = 5 marks)
 - 6E. Benefits of ESIS. (5 marks)
 - 6F. What are the determinants of health? (5 marks)



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FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE/JULY 2006

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

Monday, July 03, 2006

Time available: 3 Hours

Maximum Marks: 80

☞ Answer ALL questions.

1. Discuss the acute and longterm physiotherapy management for 45 year old man with COPD. (3+7 = 10 marks)
2. Discuss the physiotherapy management for 40 year old man who has undergone CABG. Add a note on inclusion criteria for phase II cardiac rehabilitation programme. (8+2 = 10 marks)
3. Short notes:
 - 3A. Name the primary and accessory muscles of respiration. Add a note on zone of apposition and effect of obesity on respiration. (5 marks)
 - 3B. Arterial blood gas analysis. (5 marks)
 - 3C. Indications and complications of oxygen therapy. (5 marks)
 - 3D. IPPB and CPAP. (5 marks)
 - 3E. Indications and contraindications for chest percussions in chest physiotherapy. (5 marks)
 - 3F. Define lung abscess. Add a note on physiotherapy management for the same. (1+4 = 5 marks)
 - 3G. Write on indications for pneumonectomy. Add a note on positioning and physiotherapy in first 4 days of post operative period. (1+4 = 5 marks)
 - 3H. Write on significance of any two body positions for chest physical therapy. (5 marks)
4. Brief answers:
 - 4A. Define COPD.
 - 4B. Mention radiographic appearances of restrictive disorders.
 - 4C. Mention relaxation positions for patients suffering from acute asthma.
 - 4D. PFT changes in COPD.
 - 4E. Mention the ECG changes in anterolateral MI.
 - 4F. Mention four contra indications for exercise stress testing.
 - 4G. Mention four indications for breathing exercise.
 - 4H. Define and write characteristics of broncho pulmonary segment.
 - 4I. Draw a neat diagram for postural drainage for superior segment of right lower lobe.
 - 4J. Mention pressure required for suction in adults and disadvantage of high suction pressure. (2×10 = 20 marks)



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FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE/JULY 2006**SUBJECT: COMMUNITY BASED REHABILITATION****(NEW REGULATION)**

Tuesday, July 04, 2006

Time available: 3 Hours

Maximum Marks: 80

✍ **Answer ALL questions.**

1. Write on rationale for early intervention and discuss in detail therapeutic handling and positioning in high risk babies.

(2+8 = 10 marks)

2. Classify in detail factors responsible for occupational hazard. Explain the measures to prevent it.

(5+5 = 10 marks)

3. Short notes:

3A. What are the cardiovascular changes in aging and what is the effect of maximal and sub-maximal exercise on the same.

3B. What are the merits and demerits of community based rehabilitation on comparison with hospital in-patient rehabilitation.

3C. The persons with Disability Bill (PWD).

3D. What are the physiological changes that occur with aging in the nervous and musculoskeletal system?

3E. Name any eight repetitive stress injuries in the upper limb. How is tool modification done in the same?

3F. P.T management in recurrent lateral ligament ankle injury.

3G. Effect of aerobic exercise in obesity.

3H. Physiotherapy in incontinence.

(5×8 = 40 marks)

4. Brief notes:

4A. Classify diabetes mellitus.

4B. Mention four physiological rationales for exercise post menopause.

4C. What are the fetal risks of intensive exercise in pregnancy?

4D. Normal waist-hip ratio in men and women.

4E. Mention four physiotherapeutic management techniques in lymph edema.

4F. Mention any four functions of Multipurpose Health Worker.

4G. Mention four different modes of heat loss contributing to thermoregulation in heat stress.

4H. Mention four environmental modifications to reduce falls in elderly.

4I. Ideal office chair design.

4J. ILO definition of ergonomics.

(2×10 = 20 marks)



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FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE/JULY 2006**SUBJECT: EXERCISE PHYSIOLOGY AND ELECTRODIAGNOSIS****(NEW REGULATION)**

Wednesday, July 05, 2006

Time available: 3 Hours

Maximum Marks: 80

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

SECTION – A: EXERCISE PHYSIOLOGY: 40 Marks

1. Describe the effect of immobilization in the cardio respiratory, neuro muscular, endocrine and gastrointestinal system.

(10 marks)

2. Short notes:

- 2A. Submaximal Exercise testing.
 2B. Chalk down the exercise programme for obese person.
 2C. What are the acute effects of exercise over cardio respiratory system?
 2D. Write the temperature regulation during the exercise.

(5×4 = 20 marks)

3. Short questions:

- 3A. What is aerobic and anaerobic?
 3B. Principle of overload.
 3C. What is Karvonen formula?
 3D. Write two risk factors of heart disease.
 3E. Define strength.

(2×5 = 10 marks)

SECTION – B: ELECTRODIAGNOSIS: 40 marks

4. Explain the normal and abnormal insertional activity and activity at rest? Discuss in brief about the recruitment pattern in EMG studies.

(7+3 = 10 marks)

5. Short notes:

- 5A. Abnormal Motor unit potentials myopathic and neuropathic disorders.
 5B. H Reflex.
 5C. Steps in signal processing for EMG Biofeedback.
 5D. Interpretations of motor nerve conduction study parameters.

(5×4 = 20 marks)

6. Brief questions:

- 6A. Define EMG biofeedback.
 6B. Mention the components of a motor unit?
 6C. Define axonotmesis.
 6D. What is Gain?
 6E. Define Rheobase.

(2×5 = 10 marks)



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FOURTH YEAR B.P.T. DEGREE EXAMINATION – JUNE/JULY 2006

SUBJECT: ETHICS/ADMINISTRATION AND TEACHING SKILLS

(NEW REGULATION)

Thursday, July 06, 2006

Time available: 1½ Hours

Maximum Marks: 40

1. Define confidentiality. Explain its importance in the patient-therapist relationship.
(2+8 = 10 marks)

2. Short notes:
 - 2A. Ethical principles in biomedical research involving humans.
 - 2B. Need for medical documentation.
 - 2C. Application of physical restraints.
 - 2D. Issues related to independent practice in Physiotherapy.(5×4 = 20 marks)

3. Brief answers:
 - 3A. Staff: Patient ratio.
 - 3B. Mention any two rules outlined by Indian Association of Physiotherapists.
 - 3C. Steps to safeguard the professional against litigation.
 - 3D. Ethical considerations in placebo treatment.
 - 3E. Mention the principles of bioethics.(2×5 = 10 marks)



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FOURTH YEAR B.P.T DEGREE EXAMINATION – JUNE/JULY 2006**SUBJECT: RESEARCH METHODOLOGY AND BIOSTATISTICS****(NEW REGULATION)**

Friday, July 07, 2006

Time: 3 Hrs.

Max. Marks: 80

- 1A. What is the role of Biostatistics in health research?
- 1B. Mention the types of data with examples for each.
- (5+5 = 10 marks)
- 2A. Define Central Tendency. Mention the measures of central tendency with their merits and demerits.
- 2B. Calculate the standard deviation for the following data:
21, 22, 23, 25, 20, 25, 26, 22, 23, 23
- ((1+3+2)+4 = 10 marks)
3. Define sampling. Mention the various methods of sampling. Explain any two methods of sampling with advantages and disadvantages.
- (1+1+4+4 = 10 marks)
- 4A. With the help of a neat diagram explain the properties of normal curve.
- 4B. Knee flexion is assumed to be normally distributed with a mean of 132 degrees and a standard deviation of 10 degrees. In a group of 500 people, how many would you expect to have a flexion: i) more than 142 degrees ii) between 122 and 152 degrees?
- (5+5 = 10 marks)
5. Write short essays on the following:
- 5A. Variables in research.
- 5B. Graphical presentation of data.
- 5C. Fertility statistics.
- 5D. Descriptive Epidemiology.
- 5E. Advantages of probability sampling.
- 5F. Correlation with scatter diagram.
- 5G. Steps in research process.
- 5H. Characteristics of a good hypothesis.

(5×8 = 40 marks)

