

MANIPAL UNIVERSITY

SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2010

**SUBJECT: PATHOLOGY AND MICROBIOLOGY
(COMMON FOR BOTH OLD & NEW REGULATION)**

Monday, June 07, 2010

Time: 14:00-17:00 Hrs.

Max. Marks: 80

- ✍ **Answer section A and section B in TWO separate answer books.**
 ✍ **Draw labelled diagrams wherever appropriate.**

SECTION 'A': PATHOLOGY: 40 MARKS

1. Define inflammation. Mention the cardinal features of acute inflammation. Write briefly on the cellular events of inflammation including phagocytosis. (1+2+5 = 8 marks)

2. Define oedema. Mention the types of oedema. Write briefly on the pathogenesis of renal oedema. (1+3+3 = 7 marks)

3. **Write short notes on:**
 - 3A. Differences between lepromatous and tuberculoid leprosy.
 - 3B. Clinical features and blood smear findings of iron deficiency anemia.
 - 3C. Morphology of bronchiectasis and clinical presentation of a patient with bronchiectasis.
 - 3D. Causes and clinical features of goitre.
 - 3E. Types of renal stones and complications caused by them. (5×5 = 25 marks)

SECTION 'B': MICROBIOLOGY: 40 MARKS

4. What are the differences between prokaryotic and eukaryotic cell? Draw a neat labeled diagram of bacterial cell. Add a note on various shapes and arrangement of bacteria. (3+2+3 = 8 marks)

5. Enumerate agents causing meningitis. Discuss the laboratory diagnosis of Acute bacterial meningitis. (3+4 = 7 marks)

6. Write short notes on any **FIVE**.
 - 6A. Bacillary dysentery.
 - 6B. Type IV hypersensitivity.
 - 6C. Dermatophytes.
 - 6D. Opportunistic infections in AIDS.
 - 6E. DPT vaccine.
 - 6F. Serological tests for syphilis. (5×5 = 25 marks)



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SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2010

**SUBJECT: PHARMACOLOGY
(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Wednesday, June 09, 2010

Time: 14:00-15:30 Hrs.

Max. Marks: 40

1. Define the following terms with an example:
 - 1A. Glycoside
 - 1B. First pass metabolism
 - 1C. Agonist
 - 1D. Haematinic
 - 1E. Astringent

(1×5 = 5 marks)

2. Explain the pharmacological basis for the following:
 - 2A. Levodopa in parkinsonism.
 - 2B. Bromhexine in productive cough.
 - 2C. Nitrates in angina pectoris.
 - 2D. Neostigmine in myasthenia gravis.
 - 2E. Furosemide in congestive heart failure.

(2×5 = 10 marks)

- 3A. Name four drugs used in the treatment of tuberculosis. Write one important adverse effects for each drug.

(2+2 = 4 marks)
- 3B. Name two glucocorticoids preparations and mention two uses for them.

(1+1 = 2 marks)
- 3C. Name two β-lactam antibiotics and write two uses for any one.

(1+1 = 2 marks)
- 3D. Name two anticoagulants and write two adverse effects for any one.

(2 marks)

- 4A. Classify opioid analgesics with examples. Mention two indications and two adverse effects for any one.
- 4B. Write two indications and two adverse effects for d-tubocurarine.

((2+1+1)+(1+1) = 6 marks)

- 5A. Enumerate three groups of drugs used in bronchial asthma with one example for each.
- 5B. Enlist three advantages and three disadvantages of intravenous route of drug administration.
- 5C. Write three uses and three adverse effects of diazepam.

(3+3+3 = 9 marks)



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SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2010

SUBJECT: DEVELOPMENTAL AND ORGANIZATIONAL PSYCHOLOGY

Friday, June 11, 2010

Time: 14:00-17:00 Hrs.

Max. Marks: 80

Answer ALL questions. All questions carry equal marks.

1. Describe how neural and glandular development takes place across various age groups?
2. Delineate the development of intelligence and briefly explain tests for assessing intelligence.
3. How various groups are formed in an organization? What are the functions performed by these groups?
4. **Write short notes on:**
 - 4A. Social man in an organization.
 - 4B. Consequences of winning and losing in an organization.
 - 4C. Assessment of motor skills.
 - 4D. Two theories of emotion.



MANIPAL UNIVERSITY

SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2010

SUBJECT: OCCUPATIONAL THERAPY – II
(With Biomechanics and Kinesiology)

Monday, June 14, 2010

Time: 14:00-17:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

1. Explain in detail the following aspects of hip joint kinematics

1A. Type of joints.

1B. Axes of movement permitted.

1C. Muscles acting around the joint.

(4+3+8 = 15 marks)

2. Discuss in detail the neuro-anatomy of stretch reflex and explain the aims of reflex testing.

(8+7 = 15 marks)

3. Explain in detail the steps involved in creating an occupational profile and the factors affecting the occupational therapy evaluation.

(8+7 = 15 marks)

4. Describe the guidelines in process of critiquing; also explain the concepts of reliability and validity.

(10+5 = 15 marks)

5. **Short Notes:**

5A. Lumbar Pelvic Rhythm.

5B. Advantages and disadvantages of history taking.

5C. Ligaments supporting wrist joint.

5D. Circumductory gait.

(5×4 = 20 marks)



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SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2010

SUBJECT: RESEARCH METHODOLOGY AND STATISTICS

Wednesday, June 16, 2010

Time: 14:00-17:00 Hrs.

Max. Marks: 80

☞ **Answer ALL questions.**

1A. Differentiate nominal and ordinal scales of measurement with example.

1B. Discuss in detail about the uses of Review of literature in Research.

(5+5 = 10 marks)

2A. Describe stratified and systematic random sampling techniques.

2B. Enumerate advantage of sampling over Census.

(6+4 = 10 marks)

3A. Represent the following data by a histogram and locate the mode of the distribution.

Age in years	5 – 10	10 – 15	15 – 20	20 – 25	25 – 30	30 – 35
frequency	2	9	29	54	11	5

3B. Explain various uses of scatter diagram with sketches.

((4+1)+5 = 10 marks)

4A. Define epidemiology. State the aims of epidemiology.

4B. Write briefly on cross sectional studies.

(5+5 = 10 marks)

5A. Define health information system. List the requirements of health information system.

5B. Define crude birth rate and general fertility rate.

(5+5 = 10 marks)

6. Write short note on:

6A. Registration of vital events.

6B. Discrete and continuous variables.

6C. Quartiles and Percentiles.

6D. Measures of central tendency.

6E. Characteristics of a good hypothesis.

6F. Properties of normal curve.

(5×6 = 30 marks)

