

**MANIPAL ACADEMY OF HIGHER EDUCATION**

(Deemed University)

**SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2006****SUBJECT: PATHOLOGY AND MICROBIOLOGY  
(COMMON FOR BOTH OLD & NEW REGULATION)**

Wednesday, June 07, 2006

Time: 3 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 necrosis. Mention the types of necrosis with examples. (2+6 = 8 marks)
2. Define and classify anemia. Describe the clinical features of Iron deficiency anemia. (2+3+2 = 7 marks)
3. Write short notes on any FIVE. (5×5 = 25 marks).
  - 3A. Complications of atherosclerosis.
  - 3B. Scurvy.
  - 3C. Goiter.
  - 3D. Clinical features of CNS tumours.
  - 3E. Rheumatoid arthritis.
  - 3F. Basal cell carcinoma.

**SECTION 'B': MICROBIOLOGY: 40 MARKS**

4. Describe the pathogenesis and laboratory diagnosis of pulmonary tuberculosis. Add a note on BCG. (3+3+2 = 8 marks)
5. Enumerate the organisms causing meningitis. Describe the laboratory diagnosis of pneumococcal meningitis. (3+4 = 7 marks)
6. Write short notes on any FIVE.
  - 6A. Louis Pasteur.
  - 6B. Candidiasis.
  - 6C. Prophylaxis of rabies.
  - 6D. Type III hypersensitivity.
  - 6E. Sterilisation by filtration.
  - 6F. Laboratory diagnosis of HIV infection. (5×5 = 25 marks)



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**SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2006****SUBJECT: PHARMACOLOGY  
(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Thursday, June 08, 2006

Time: 1½ Hrs.

Max. Marks: 40

1. Enumerate four classes of antithyroid drugs with examples. (5 marks)
  
2. Give the pharmacological basis for the following:
  - 2A. The use of digoxin in congestive cardiac failure.
  - 2B. Combination of drugs in tuberculosis.
  - 2C. Why corticosteroids should not be stopped abruptly? (2×3 = 6 marks)
  
- 3A. Enumerate different routes of drug administration with one drug given by each route.
- 3B. List advantages and disadvantages of topical route of drug administration. (4½+1½ = 6 marks)
  
- 4A. List four groups of NSAIDs with two examples for each group.
- 4B. Why morphine should not be used in head injury? (4+2 = 6 marks)
  
5. Write briefly on:
  - 5A. Adverse effects of anticancer drugs
  - 5B. Preparations of iron
  - 5C. Local anaesthetics
  - 5D. Teratogenicity. (2×4 = 8 marks)
  
6. Give two examples and two uses of the following groups of drugs:
  - 6A. β blockers
  - 6B. Aminoglycosides
  - 6C. Skeletal muscle relaxants
  - 6D. Beta lactam antibiotics
  - 6E. Antiepileptics
  - 6F. Hypnotics
  - 6G. Anticoagulants
  - 6H. ACE inhibitors
  - 6I. Loop diuretics. (1×9 = 9 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

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**SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2006**

**SUBJECT: DEVELOPMENTAL AND ORGANIZATIONAL PSYCHOLOGY**

Friday, June 09, 2006

Time: 3 Hrs.

Max. Marks: 80

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✍ **Answer all the questions. All questions carry equal marks.**

1. What are the stages of language development in children?
2. "Organization is a complex system". Describe this statement with suitable examples.
3. Define intelligence and describe the tests employed for measuring intelligence in children.
4. Write short notes on:
  - 4A. Socialization.
  - 4B. Speech development.
  - 4C. Classification of Organization.
  - 4D. Process of management.





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**SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2006****SUBJECT: OCCUPATIONAL THERAPY – II****(With Biomechanics and Kinesiology)**

Saturday, June 10, 2006

Time: 3 Hrs.

Max. Marks: 80

✍ Answer ALL the questions.

1. Describe with diagram the functional unit of spine and its bio-mechanical function. Discuss in detail the kinematics of the lumbar spine in flexion, extension, lateral flexion and rotation.  
(3+12 = 15 marks)
2. Narrate Warren's hierarchy of visual-perception. Explain the assessment of visual foundation skills.  
(5+10 = 15 marks)
3. Define bases of support. Analyse the optimal posture in lateral view in reference to the position of pelvis, hip, knee and ankle joints. Discuss the deviation from optimal alignment in lateral view.  
(2+13 = 15 marks)
4. What do you mean by occupational function? Classify and discuss the detail evaluative method to assess roles and competency for optimal occupational functioning through cultural and physical context.  
(7+8 = 15 marks)
5. Short notes:
  - 5A. Principles of muscle testing.
  - 5B. Pre-requisites for reflex evaluation.
  - 5C. VALPAR
  - 5D. Describe the significance of double support in gait cycle.  
(5×4 = 20 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**

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**SECOND YEAR BOT DEGREE EXAMINATION – JUNE 2006****SUBJECT: RESEARCH METHODOLOGY AND STATISTICS**

Monday, June 12, 2006

Time: 3 Hrs.

Max. Marks: 80

- 1A. Explain briefly the uses of statistical methods of health science with examples.  
1B. Distinguish between discrete and continuous variable with one example each.  
(5+5 = 10 marks)

- 2A. Explain the characteristics of Ordinal scale of measurement. Give two examples for the same.  
2B. Define: Population, Sample, Sampling, Sampling frame and Random sampling.  
(3+2)+5 = 10 marks)

3. Following is the Pulse rate of 30 adults.

Pulse rate per minute of 30 adults				
89	77	79	80	90
68	83	77	80	87
92	75	96	82	71
74	87	80	81	72
76	85	70	86	62
65	64	85	71	78

- i) Construct a frequency table with class intervals 60-67, 68-75, . . . etc.  
ii) Represent the data by a histogram.

(5+5 = 10 marks)

- 4A. Define inter-quartile range. State the qualities of a good measure of variation.

- 4B. What do you mean by central tendency?

Followings are the birth weight of 10 babies:

Birth weight (Kgs): 2.1, 2.5, 3.5, 3, 4, 1.8, 2.8, 3.2, 3.5, 2.4

Compute mean and median.

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

- 5A. Mean of a distribution is 47 and standard deviation is 3.

In a sample of 900 observations, assuming Normality, estimate the number of observations

- i) less than 44    ii) between 44 and 53

- 5B. Explain the study of correlation by 'Scatter Diagram'.

(5+5 = 10 marks)

- 6A. Enumerate the uses of health information system. List any four sources of health information system.

- 6B. Explain the terms incidence and prevalence with example.

((3+2)+5 = 10 marks)

- 7A. Define Reliability. Explain any one method of testing reliability.

- 7B. Define crude death rate. What are its uses and limitations?

(2+3)+5 = 10 marks)

8. State the aims of epidemiology. Discuss the usefulness and limitations of Cross-sectional studies.

(3+3+4 = 10 marks)

