

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: PATHOLOGY AND MICROBIOLOGY****(OLD/NEW REGULATION)**

Wednesday, June 08, 2005

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 atherosclerosis. Discuss the predisposing factors and complications of atherosclerosis. (2+3+3 = 8 marks)
2. Explain the process of fracture healing and add a note on factors influencing fracture repair. (4+3 = 7 marks)
3. Write short notes on any FIVE:
 - 3A. Haemophilia.
 - 3B. Complications of diabetes mellitus.
 - 3C. Differences between benign and malignant tumours.
 - 3D. Etiology of peptic ulcers.
 - 3E. Morphology of lepromatous leprosy.
 - 3F. Fate of a thrombus.

(5×5 = 25 marks)

SECTION 'B': MICROBIOLOGY: 40 MARKS

4. Describe the structure, laboratory diagnosis and prophylaxis of Hepatitis B virus. (3+3+2 = 8 marks)
5. Define and classify sterilization. Describe in detail chemical methods of sterilization. (1+2+4 = 7 marks)
6. Write short notes on any FIVE of the following:
 - 6A. Spore.
 - 6B. Anaphylaxis.
 - 6C. Prophylaxis of tetanus.
 - 6D. Etiological agents of wound infections.
 - 6E. Cryptococcus neoformans.
 - 6F. Negri bodies.

(5×5 = 25 marks)



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SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: PHARMACOLOGY**

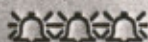
(OLD/NEW REGULATIONS)

Thursday, June 09, 2005

Time: 1½ Hrs.

Max. Marks: 40

1. Mention any four antiepileptic drugs and four adverse effects. Explain the mechanism of action of any **ONE**.
(2+2+1 = 5 marks)
- 2A. Mention any **FOUR** beta adrenergic receptor blockers and mention **TWO** uses and **TWO** contraindications.
- 2B. Name **TWO** bronchodilators and explain the mechanism of action of any one of them.
(4+3 = 7 marks)
3. Define the following terms with one example for each:
- 3A. First pass metabolism
- 3B. Surprainfection
- 3C. Prodrug
- 3D. Plasma half life
- 3E. Synergism
(2×5 = 10 marks)
4. Give the pharmacological basis.
- 4A. Steroidal theory should not be stopped abruptly.
- 4B. Neostigmine is preferred in myasthenia gravis.
- 4C. Tetracycline should be avoided in pregnancy.
- 4D. Chlorpromazine induces parkinsonism.
- 4E. Propylthiouracil is used in hyperthyroidism.
(2×5 = 10 marks)
5. Name any two skeletal muscle relaxants and explain the mechanism of action of any one.
(3 marks)
6. Answer the following:
- 6A. Name two drugs which induce megaloblastic anemia.
- 6B. Name two drugs used in gout.
- 6C. Name one anabolic steroid and one indication.
- 6D. Name two drugs used in angina pectoris.
- 6E. Name **TWO** intravenous anesthetics.
(1×5 = 5 marks)



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SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: DEVELOPMENTAL AND EXPERIMENTAL PSYCHOLOGY**

Friday, June 10, 2005

Time: 3 Hrs.

Max. Marks: 80

Answer all the questions. All questions carry equal marks.

1. What is Developmental Psychology? Describe the characteristic features of the developmental pattern, in general.
(20 marks)
2. Describe the factors affecting social development. Briefly discuss the pattern of social development during childhood.
(20 marks)
3. Describe the experimental method with examples. Evaluate its strengths and limitations in the field of Psychology.
(20 marks)
4. Write short notes on:
 - 4A. James Lange theory of emotion.
 - 4B. Motor development in infancy.
 - 4C. Operant conditioning.
 - 4D. Assessment of language skills.

(5×4 = 20 marks)



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SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: OCCUPATIONAL THERAPY – II****(With Biomechanics and Kinesiology)**

Monday, June 13, 2005

Time: 3 Hrs.

Max. Marks: 80

Answer ALL the questions.

1. Explain linear and concurrent force system. A shoulder wheel has a handle that may be adjusted at various distances from the axis. Compare the efforts required by the patient to turn the wheel 50cm radius when handle is at 15cm and 30cm from the axis.
(6+5+4 = 15 marks)
2. Write the static analysis of hip joint during the stance phase.
(3+12 = 15 marks)
3. List down the sub components of sensory part of sensor-motor component under performance component and explain in brief.
(5+10 = 15 marks)
4. Define coordination. Describe the types of in-coordination.
(2+13 = 15 marks)
5. Short notes:
 - 5A. Genu valgum and varum.
 - 5B. Extensor hood assembly.
 - 5C. Vicarious movement.
 - 5D. Leisure.(5 × 4 = 20 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION

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SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2005

SUBJECT: BASIC STATISTICS AND RESEARCH METHODOLOGY

Tuesday, June 14, 2005

Time: 3 Hrs.

Max. Marks: 80

Answer all the questions.

1A. State the functions and limitations of statistics.

1B. Differentiate ordinal and interval scales of measurement with example.

(5+5 = 10 marks)

2A. Explain qualitative and quantitative characteristics with example.

2B. Define simple random sampling. Enumerate the merits of stratified random sampling over simple random sampling.

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

3. Following is the haemoglobin levels (g/dl) of 30 normal children.

Haemoglobin level in g/dl				
12.50	12.00	11.80	10.50	12.60
13.90	12.60	12.20	12.20	11.60
12.60	12.80	11.90	13.40	13.30
11.00	11.40	12.20	11.70	13.00
10.90	10.40	10.80	12.00	13.20
12.30	12.30	12.00	12.90	14.20

i) Construct a frequency table with class intervals 10-11, 11-12 . . . etc.

ii) Construct a relative frequency distribution

iii) What is the percentage of children with haemoglobin level less than 11g/dl.

(5+3+2 = 10 marks)

4A. What do you mean by central tendency?

Compute mean and median for the following data.

Hb level (in gm%) : 12, 13.2, 12, 10, 12.8, 11.6, 13, 12

4B. Define coefficient of variation. Mean and standard deviation of Height of group of girls is 64 and 2 inches respectively and that of Hb level 12 and 1gm%. Find out which variable is more consistent?

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

5A. Explain with sketch the properties of Normal distribution.

5B. Define correlation. Explain linear and non-linear correlation with the help of scatter diagram.

(5+5 = 10 marks)

6A. Differentiate Research method and Research methodology.

6B. Define Crude death rate. List the factors affecting crude birth rate.

(5+5 = 10 marks)

- 7A. Define health information system. Enumerate the uses of health information system.
- 7B. If there had been 300 and 700 cases of an illness in a population at the beginning and towards the end of a year in a population of 80,000; what is the incidence rate?
(5+5 = 10 marks)
8. Define epidemiology. What is descriptive epidemiology? State its uses.
(2+5+3 = 10 marks)

