

## MANIPAL UNIVERSITY

SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2012

SUBJECT: PATHOLOGY  
(NEW REGULATION)

Monday, June 11, 2012

Time: 10:00-11:30 Hrs.

Max. Marks: 80

✍ **Draw labelled diagrams wherever appropriate.**

1. Discuss the definition, aetiology, types and clinical features of osteomyelitis.  
(1+2+3+2 = 8 marks)
2. Define thrombosis. Describe the factors influencing thrombosis.  
(1+6 = 7 marks)
3. **Write short notes on:**
  - 3A. Factors influencing wound healing.
  - 3B. Predisposing factors and clinical effects of atherosclerosis.
  - 3C. Aetiology and basic investigations of iron deficiency anemia.
  - 3D. Rheumatoid arthritis.
  - 3E. Routes of metastasis with examples.

(5×5 = 25 marks)



**MANIPAL UNIVERSITY****SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: MICROBIOLOGY  
(NEW REGULATION)**

Wednesday, June 13, 2012

Time: 10:00-11:30 Hrs.

Max. Marks: 40

**Answer all questions. Draw diagrams wherever appropriate:**

1. Classify sterilization methods. Describe the working principle of autoclave with the help of a diagram.

(3+5 = 8 marks)

2. Enumerate the agents causing sexually transmitted diseases. Discuss the laboratory diagnosis of syphilis.

(3+4 = 7 marks)

**3. Write short notes on:**

3A. Bacterial cell wall.

3B. Innate immunity.

3C. Type I hypersensitivity reactions.

3D. Laboratory diagnosis of pulmonary tuberculosis.

3E. Immunoprophylaxis of rabies.

(5×5 = 25 marks)



**MANIPAL UNIVERSITY****SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: PHARMACOLOGY  
(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Friday, June 15, 2012

Time: 10:00-11:30 Hrs.

Max. Marks: 40

1. Explain the following with examples:

- 1A. Bioavailability
- 1B. First pass metabolism
- 1C. Suppository
- 1D. Drug synergism
- 1E. Tachyphylaxis

(2×5 = 10 marks)

2A. Mention two anti-anginal drugs belonging to different groups. Mention two clinical indications for any one.

2B. Enlist four therapeutic uses of propranolol.

2C. Mention two differences between heparin and warfarin.

2D. Enumerate two drugs used in insomnia and give two adverse effects of any one.

2E. Enumerate two anti-tussives with two adverse effects for one.

(2×5 = 10 marks)

3A. Explain two uses of Methotrexate.

3B. Mention four Beta-lactam antibiotics.

3C. Enlist four therapeutic uses for tetracycline.

3D. Enumerate four adverse effects of dexamethasone.

(2×4 = 8 marks)

4A. Explain two pharmacological actions and mention two adverse effects of Phenytoin sodium.

4B. Mention two different groups of analgesic drugs with two examples for each.

4C. Write briefly on:

i) Rifampicin

ii) Insulin

(4+3+(2½+2½) = 12 marks)



**MANIPAL UNIVERSITY****SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: DEVELOPMENTAL AND ORGANIZATIONAL PSYCHOLOGY**

Monday, June 18, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer all questions.**

✍ **All questions carry equal marks.**

1. What are the consequences of intergroup competition? How can intergroup conflict be prevented?
2. Describe the development of behavior and discuss the various factors influencing it.
3. What are social skills? Describe the various components of social skills and methods of assessing them.
4. **Write short notes on:**
  - 4A. Neural development.
  - 4B. Scope of developmental psychology.
  - 4C. Language development in early childhood.
  - 4D. Types of informal groups and their functions.



**MANIPAL UNIVERSITY****SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: OCCUPATIONAL THERAPY – II  
(With Biomechanics and Kinesiology)**

Wednesday, June 20, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

**Answer ALL the questions.**

1. Explain in detail the structure of knee joint and the Joint reaction forces acting on weight bearing knee during unilateral stance phase.  
(7+8 = 15 marks)
2. Define ADL and IADL: also explain in detail the factors to consider in ADL and IADL evaluation.  
(8+7 = 15 marks)
3. Explain the components of history taking and the need to take history.  
(10+5 = 15 marks)
4. Define gait, explain in detail any two pathological gait forms.  
(3+12 = 15 marks)
5. **Short Notes:**
  - 5A. Determinants of center of gravity.
  - 5B. Structure of elbow joint.
  - 5C. Grades of voluntary control.
  - 5D. Stages of prevocational evaluation.(5×4 = 20 marks)



## MANIPAL UNIVERSITY

SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2012

SUBJECT: RESEARCH METHODOLOGY AND STATISTICS

Friday, June 22, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. Explain experimental research. (5 marks)
2. List the characteristics of a good hypothesis. (5 marks)
3. Describe qualitative variables. (5 marks)
4. Classify the following into different scales of measurement (Nominal, Ordinal, Interval and Ratio)
  - 4A. Weight
  - 4B. Temperature ( $^{\circ}$ K)
  - 4C. Stages of Cancer
  - 4D. IQ
  - 4E. Telephone number(6 marks)
5. Write a note on systematic sampling. (5 marks)
- 6A. Construct a histogram for the fasting blood glucose levels of 30 children

Blood glucose level in mg/dl	Number of children
55 – 60	5
60 – 65	10
65 – 70	8
70 – 75	4
75 – 80	3

6B. The following are the ages of 30 men in an emergency ward on a particular day. Construct frequency table along with relative and cumulative frequencies taking class intervals 10 – 20, 20 – 30, 30 – 40, and so on.

45	57	54	45	37	53	22	38	35	56
45	23	64	10	34	22	35	32	36	12
55	46	21	43	39	60	36	45	55	44

(5+5 = 10 marks)

7. Two samples of cholesterol measurements on a given person using Autoanalyser and Microenzymatic measurement technique are given below.

Compute the variability in the methods using coefficient of variation.

**Autoanalyser(mg/dL):** 177 193 195 209 226

**Microenzymatic(mg/dL):** 192 197 200 202 209

(10 marks)

8. How many percent of the observations in a normal distribution are

8A. More than Mean + 2 SD

8B. Between Mean – 2 SD and Mean + 2 SD

8C. Between Mean – SD and Mean + SD

8D. Between Mean – 2 SD and Mean + SD

(5 marks)

9. What is Karl-Pearson's correlation coefficient? List out its properties.

(5 marks)

10. Give the definition of health information system. Enumerate its requirements.

(5 marks)

11. Define any five measures of mortality giving the formula.

(10 marks)

12. Briefly explain case series and cross sectional study designs.

(10 marks)

