

MANIPAL UNIVERSITY**SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2007****SUBJECT: PATHOLOGY AND MICROBIOLOGY
(COMMON FOR BOTH OLD & NEW REGULATION)**

Monday, December 10, 2007

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. Describe the etiology of leprosy. Tabulate the differences between lepromatous and tuberculoid leprosy. Describe the morphology of any one.
(1+4+3 = 8 marks)
2. Describe the process of wound healing by secondary intention. Add a note on factors influencing wound healing.
(4+3 = 7 marks)
3. Write short notes on
 - 3A. Sickle cell anemia
 - 3B. Vitamin D deficiency
 - 3C. Basal Cell Carcinoma
 - 3D. Definition and Causes of meningitis
 - 3E. Etiology and clinical features of Carcinoma breast(5×5 = 25 marks)

SECTION 'B': MICROBIOLOGY: 40 MARKS

4. Enumerate the agents causing meningitis. Discuss the laboratory diagnosis of acute bacterial meningitis.
(3+5 = 8 marks)
5. Write a neat labeled diagram of bacterial cell. Describe cell envelope.
(2+5 = 7 marks)
6. Write short notes on any FIVE.
 - 6A. Tyndallisation.
 - 6B. Modes of transmission of infection.
 - 6C. Bacillary dysentery.
 - 6D. Laboratory diagnosis of enteric fever.
 - 6E. Opportunistic infections in AIDS.
 - 6F. Vaccines.(5×5 = 25 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2007****SUBJECT: PHARMACOLOGY
(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Tuesday, December 11, 2007

Time: 1½ Hrs.

Max. Marks: 40

1. Answer the following:

- 1A. Enumerate any six nonsteroidal antiinflammatory agents.
- 1B. Explain the antiinflammatory activity of any one NSAID. Mention one advantage and one disadvantage of selective COX-2 inhibitors.
- 1C. Write the mechanism of action of oral anticoagulants.
- 1D. Mention four common features of aminoglycosides.

(3+2+1+2+2= 10 marks)

2. Mention:

- 2A. Four bronchodilators.
- 2B. Two uses and two side effects of diphenhydramine.
- 2C. Four drugs used in tuberculosis.
- 2D. Two advantages and two disadvantages of transdermal preparations.
- 2E. Eutectic local anesthetic mixture and its use.

(2×5 = 10 marks)

3. Give reason/s:

- 3A. Adrenaline is used in anaphylactic shock.
- 3B. Propranolol improves the exercise performance in classic anginal patient.
- 3C. Levodopa is combined with carbidopa in parkinsonism.
- 3D. Chronic treatment of corticosteroids should not be stopped abruptly.
- 3E. Tetracyclines to be avoided in young children.

(2×5 =10 marks)

4. Answer the following:

- 4A. Mention two loop diuretics, write two uses for any one.
- 4B. Define tachyphylaxis and give an example.
- 4C. Mention two uses and two adverse effects of ACE inhibitors.
- 4D. Write briefly on human insulin.
- 4E. Explain the use of digoxin in CHF.

(2×5 = 10 marks)



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SECOND YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2007

SUBJECT: DEVELOPMENTAL AND ORGANIZATIONAL PSYCHOLOGY

Wednesday, December 12, 2007

Time: 3 Hrs.

Max. Marks: 80

Answer ALL questions. All questions carry equal marks.

1. Describe the methods for assessing motor skills.
2. Discuss about the different perspectives of development of behavior.
3. Discuss various strategies employed for effectiveness of an organization.
4. Write short notes on:
 - 4A. Variables affecting the integration in groups.
 - 4B. Psychological contract.
 - 4C. Characteristic of developmental pattern.
 - 4D. Importance of play in children.



MANIPAL UNIVERSITY**SECOND YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2007****SUBJECT: OCCUPATIONAL THERAPY – II
(With Biomechanics and Kinesiology)**

Thursday, December 13, 2007

Time: 3 Hrs.

Max. Marks: 80

Answer ALL the questions.

1. Discuss the gravitational movements acting around vertebral column, pelvis, hip, knee and ankle in optimal erect posture.
(15 marks)
2. Brief out any five standardised test used for hand functional.
(15 marks)
3. How do you classify reflexes and discuss in detail about any four deep tendon reflexes with clinical significance.
(3+12 = 15 marks)
4. Describe the biomechanics of lumbar spine.
(15 marks)
5. Short notes:
 - 5A. Describe flexor pulleys with help of neat diagram.
 - 5B. Ground reaction force during single leg stance phase from mid-stance to heel-off in sagittal plane.
 - 5C. Semmes-Weinstein monofilament.
 - 5D. Signs of posterior column involvement.
(5×4 = 20 marks)



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SECOND YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2007

SUBJECT: RESEARCH METHODOLOGY AND STATISTICS

Friday, December 14, 2007

Time: 3 Hrs.

Max. Marks: 80

1. Explain some uses of statistics in health science with example. (5 marks)
2. Qualitative and quantitative characteristics with example. (5 marks)
3. Explain the meaning of dependent and independent variables in research with example. (5 marks)
4. Define the following terms- Population, Sample, Sampling, Sampling frame and Sample size. (5 marks)
5. Explain exclusive and inclusive type class interval with example. (5 marks)
6. Following table shows the pass percentage of undergraduate Physiotherapy students in four successive years. Represent the data by an appropriate bar diagram and interpret.

Year	2005	2006	2007	2008
Male	88	85	80	77
Female	90	93	96	99

(5 marks)

7. Define mean and median of a distribution. State their merits and demerits. (5 marks)
8. The following are the fasting blood glucose levels of 10 children.
Blood glucose level in mg/dl 65 72 65 64 68 73 65 64 75 79.
Compute range and standard deviation. (5 marks)
9. Given the mean and standard deviation of serum calcium level for healthy men are 9 and 0.5 mg/dl respectively. In a sample of 500 cases, assuming Normality estimate the number of individuals with serum calcium level less than 8.5 mg/dl.

(5 marks)

10. What is a scatter diagram? State the merits and demerits of scatter diagram. (5 marks)
11. Define Health Information System. List the requirements to be satisfied by the health information systems. (5 marks)
12. If there had been 200 and 300 cases of an illness in a population at the beginning and towards the end of a year in a population of 30,000, what is the incidence rate? (5 marks)
13. Define Infant Mortality Rate. What are its uses? Discuss its indications. (5 marks)
14. What do you mean by validity of a test? Explain any two types of validity. (5 marks)
15. Define Epidemiology. What is descriptive epidemiology? State its uses. (2+5+3 = 10 marks)

