

# MANIPAL UNIVERSITY

**SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2009**

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

Thursday, December 10, 2009

Time: 10:00-13:00 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. Describe the cellular events in acute inflammation. (1+7 = 8 marks)
  
2. Compare the process of wound healing by primary intention. Differentiate primary and secondary wound healing. (5+2 = 7 marks)
  
3. Write short notes on:
  - 3A. Fate of a thrombus
  - 3B. Myocardial infarction
  - 3C. Bronchial Asthma
  - 3D. Viral hepatitis B
  - 3E. Idiopathic thrombocytopenic purpura(5×5 = 25 marks)

### SECTION 'B': MICROBIOLOGY: 40 MARKS

4. Define and classify immunity. Explain innate immunity. (1+2+4 = 7 marks)
  
5. Describe bacterial cell in detail. (8 marks)
  
6. Write short notes on any **FIVE**:
  - 6A. Serological tests for syphilis.
  - 6B. Autoclave.
  - 6C. Laboratory diagnosis of diphtheria.
  - 6D. Prophylaxis of rabies.
  - 6E. Cryptococcal meningitis.
  - 6F. Influenza Virus.(5×5 = 25 marks)



**MANIPAL UNIVERSITY****SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2009****SUBJECT: PHARMACOLOGY  
(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Friday, December 11, 2009

Time: 10:00-11:30 Hrs.

Max. Marks: 40

1. Enumerate three different classes of  $\beta$ -adrenergic receptor blockers. Explain the mechanism of antihypertensive action of  $\beta$ -blockers.  
(3+2 = 5 marks)
- 2A. Mention four non-steroidal anti-inflammatory drugs. Give two contraindications of any one.  
2B. Give two examples of benzodiazepines and two uses.  
(3+2 = 5 marks)
- 3A. Name two insulin preparations and two adverse effects.  
3B. Explain the effects of prednisolone on carbohydrate, fat protein metabolism.  
(2+3 = 5 marks)
4. Define the following terms with an example:  
4A. Chemotherapeutic agent  
4B. Mucolytics  
4C. Fibrinolytics  
4D. Competitive antagonism  
4E. Synergism  
(2×5 = 10 marks)
5. Explain the pharmacological basis for the following:  
5A. Phenytoin in Grand mal epilepsy  
5B. Nitrates in Angina pectoris  
5C. Salbutamol in Bronchial asthma  
5D. Spironolactone in CCF  
5E. Lignocaine as local anaesthetic  
(2×5 = 10 marks)
6. Answer the following:  
6A. Define therapeutic index.  
6B. Define expectorants.  
6C. Antidote in organophosphorous compound poisoning.  
6D. Selective serotonin reuptake inhibitors.  
6E. Drugs used in Lepre-reactions.  
(1×5 = 5 marks)



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## MANIPAL UNIVERSITY

SECOND YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2009

SUBJECT: DEVELOPMENTAL AND ORGANIZATIONAL PSYCHOLOGY

Saturday, December 12, 2009

Time: 10:00-13:00 Hrs.

Max. Marks: 80

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

1. Describe development of behaviour and outline the influence of socio cultural factors influencing it.
2. Define social skills. Enumerate the major components of social skills and methods of assessing social skills.
3. Outline the problems in the adaptive-coping cycle in an organization and describe the organizational conditions for effective coping.
4. Write short notes on:
  - 4A. Development of thinking.
  - 4B. Methods of reducing negative consequences of intergroup competition.
  - 4C. Characteristics of a complex man in an organization.
  - 4D. Functions of a group.



## MANIPAL UNIVERSITY

### SECOND YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2009

#### SUBJECT: RESEARCH METHODOLOGY AND STATISTICS

Monday, December 14, 2009

Time: 10:00-13:00 Hrs.

Max. Marks: 80

- 1A. State the functions and limitations of statistics.  
 1B. Explain discrete and continuous variables with example. (5+5 = 10 marks)

- 2A. Differentiate nominal and ordinal scales of measurement with example.  
 2B. Explain stratified random sampling with example. State its advantages over simple random sampling. (5+5 = 10 marks)

3. Following are the height distribution of 30 students of a class.

Height in inches of 30 students of a class				
60	71	67	68	69
72	61	60	65	70
66	65	64	69	68
60	63	70	67	69
62	63	67	68	67
70	73	65	69	74

- i) Prepare a frequency table with class intervals 60-63, 63-66, 66-69, .....  
 ii) Represent the data by a histogram. (5+5 = 10 marks)

- 4A. Calculate median and standard deviation for the following data:  
 Sys. B.P (mmHg): 121, 128, 125, 119, 122, 125, 118, 126,  
 4B. Define and explain the use of Coefficient of Variation. (6+5 = 11 marks)

- 5A. Explain the interpretation of correlation coefficient.  
 5B. Given the mean and standard deviation of weight of new born babies are 3 Kg and 0.5 Kg respectively. Assuming Normality estimate the percentage of newborns with weight  
 i) more than 2.5 Kgs    ii) between 2.5 and 3.5 Kgs (4+5 = 9 marks)

- 6A. Discuss Sample registration system as a source of health information system.  
 6B. Explain the terms rate and ratio with example. (5+5 = 10 marks)

- 7A. Differentiate Reliability and Validity with example.  
 7B. Define Crude death rate. What are its uses and limitations? (5+5 = 10 marks)

- 8A. Enumerate the uses of descriptive epidemiology.  
 8B. Write short note on Cross-sectional studies. (5+5 = 10 marks)

