Reg. No.								
----------	--	--	--	--	--	--	--	--

## MANIPAL UNIVERSITY

## SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION - DECEMBER 2008

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

Wednesday, December 10, 2008

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

 Mention the cardinal signs of inflammation. Enumerate the cellular events in acute inflammation. Describe the steps and mechanism of phagocytosis.

(1+2+5 = 8 marks)

Define anemia. Classify anemia based on the causes of anemia. What are the clinical features of vitamin B12 deficiency anemia?

(1+4+2 = 7 marks)

- Write short notes on:
- 3A. Healing of fracture including factors influencing it.
- Clinical features and types of Diabetes mellitus.
- 3C. Predisposing factors and complications of atherosclerosis.
- 3D. Ghon complex.
- 3E. Modes of spread of malignant tumors with examples.

 $(5 \times 5 = 25 \text{ marks})$ 

## SECTION 'B': MICROBIOLOGY: 40 MARKS

4. Define and classify sterilization. Explain in detail moist heat sterilization.

(1+2+5 = 8 marks)

5. Define and classify immunity. Explain acquired immunity.

(1+2+4 = 7 marks)

- Write short notes on any FIVE.
- 6A. Candidiasis.
- 6B. Bacterial capsule.
- 6C. Bacteria causing gastro intestinal infections.
- 6D. Prophylaxis of poliomyelitis.
- 6E. Koch's postulates.
- 6F. Post streptococcal sequalae.

 $(5 \times 5 = 25 \text{ marks})$ 

Reg. No.

### MANIPAL UNIVERSITY

### SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2008

# SUBJECT: PHARMACOLOGY (COMMON FOR BOTH OLD & NEW REGULATIONS)

Thursday, December 11, 2008

Time: 10.00-11.30 Hrs.

Max. Marks: 40

- Define the following with examples
- 1A. Bioavailability
- 1B. Enzyme induction
- Iatrogenic disease

 $(2\times3 = 6 \text{ marks})$ 

- Mention two skeletal muscle relaxants belonging to different groups. Give their adverse effects.
- 2B. Enlist the therapeutic uses of adrenaline.
- Mention one short acting and one long acting non-steroidal anti-inflammatory drugs with two
  uses for any one.
- Name two drugs used in schizophrenia and give two neurological adverse effects produced by them.
- 2E. Mention four drugs for treatment bronchial asthma.

 $(2 \times 5 = 10 \text{ marks})$ 

- 3A. Define what is an antibiotic. Give one examples each for anti-cancer and anti-tuberculosis antibiotics.
- 3B. Write the adverse effect of tetracycline.
- 3C. Enlist commonly used anti-malarial drugs and write two adverse effects for any one.
- 3D. Write the therapeutic uses of ampicillin.

 $(2\times4=8 \text{ marks})$ 

- 4A. How the exercise programme can influence drug therapy? Explain with suitable examples.
- 4B. Mention three different groups of anti-hypertensive drugs with an example for each group.
- 4C. Write briefly on:
  - i) Prednisolone
- ii) Xylocaine

(3+3+(3+3) = 12 marks)

- 5A. Explain the pharmacological basis for the use of levodopa and carbidopa.
- 5B. Name a condition where atropine is used and explain the basis for its use.

(2+2 = 4 marks)



Reg.	No.										
------	-----	--	--	--	--	--	--	--	--	--	--

### MANIPAL UNIVERSITY

#### SECOND YEAR B.O.T. DEGREE EXAMINATION - DECEMBER 2008

# SUBJECT: OCCUPATIONAL THERAPY – II (With Biomechanics and Kinesiology)

Saturday, December 13, 2008

Time: 10.00-13.00 Hrs.

Max. Marks: 80

#### Answer ALL the questions.

 Draw neatly and describe midcarpal and intercarpal joint of hand and explain the kinematic aspects for the same.

(15 marks)

2. Reason out importance of critique assessment for occupational therapy and how do you carry it out?

(15 marks)

3. Draw neatly the extra pyramidal tracts and deduce the sign's of extra pyramidal disease.

(6+9 = 15 marks)

4. What are the principles of muscle testing and the limitation of muscle testing?

(10+5 = 15 marks)

- 5. Short notes:
- 5A. Importance of unco-uncal joint.
- 5B. Define equilibrium, types and laws of the same.
- 5C. Enumerate in brief the assessing component in physical environment.
- 5D. Sense of motion and position.

 $(5 \times 4 = 20 \text{ marks})$ 



## MANIPAL UNIVERSITY

## SECOND YEAR B.O.T/THIRD YEAR B.Sc.R.T. DEGREE EXAMINATION – DECEMBER 2008 SUBJECT: RESEARCH METHODOLOGY AND STATISTICS

Monday, December 15, 2008

Time: 10.00-13.00 Hrs.

Max. Marks: 80

What is epidemiology and list the objectives of it. Define descriptive epidemiology and 1. explain case series study with its merits and demerits.

(3+7 = 10 marks)

- Briefly explain the various measures of central tendency.
- 2B. Mid-arm circumference (in cms.) of 12 male children aged 4 months is given below. Calculate the standard deviation.

14, 11, 11, 10, 12, 13, 10, 14, 11, 11, 10, 12

(5+5 = 10 marks)

3. Discuss stratified random sampling and systematic random sampling with merits and demerits of each.

(10 marks)

With examples explain the different types of variables in research. 4.

(10 marks)

- Write short notes on: 5.
- 5A. Correlation.
- 5B. Biostatistics and its role in health science.
- Reliability and validity.
- 5D. Health information system and uses.
- Total fertility rate and general fertility rate. 5E.

 $(5\times5=25 \text{ marks})$ 

- In a study on diabetes patients, it was observed that the weight of patients follows normal 6. distribution with mean weight 60 Kg and a standard deviation of 4 Kg. what is the probability that a patient selected randomly have weight
  - Between 52 Kg and 56 Kg b) Above 64 kg.

(5 marks)

Following data gives the population (in crores) of 5 countries in the year 1999. Represent the data by a suitable bar diagram.

Country	Population (in crores)
A	90
В	110
С	25
D	45
Е	75

(5 marks)

- 8. From the following data of a town during the year 1999, Calculate:
  - a) Peri-natal Mortality Rate
  - b) Post Neo-natal Mortality Rate

### Data:

Mid-year population for the year 1999	110,000
Late fetal deaths	20
No. of live births	3050
No. of infant deaths	298
No. of maternal deaths	23
No. of infants deaths in the 1st month of life	94
No. of infants deaths within 7 days of age	76

(5 marks)