

MANIPAL UNIVERSITY

**THIRD/FOURTH YEAR B.Sc. R.R.T. & D.T./B.Sc. C.V.T./B.Sc. M.R.T/B.Sc. R.T./
B.Sc. M.L.T./B.O.T./B.P.T. DEGREE EXAMINATION – JUNE 2015**

**SUBJECT: BIOSTATISTICS & RESEARCH METHODOLOGY/RESEARCH
METHODOLOGY & STATISTICS/BIOSTATISTICS/BASIC BIOSTATISTICS &
RESEARCH METHODOLOGY/RESEARCH METHODOLOGY AND BIOSTATISTICS**

Monday, June 01, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

☞ Answer ALL the questions.

1. Define statistics and list its role in health sciences. (5 marks)
2. Describe Validity and Reliability. (5 marks)
3. Give the difference between nominal and ordinal variables with examples. (5 marks)
4. Classify the following into different scales of measurements (Nominal, Ordinal, Interval and Ratio).

| | | |
|--------------------------------|-----------------------------------|--------|
| a) Temperature ($^{\circ}F$) | b) City | c) Age |
| d) Gender | e) Stage of disease (I/II/III/IV) | |

(5 marks)
5. Briefly describe Probability and Non Probability sampling. (5 marks)
- 6A. In a study of 126 patients admitted in a hospital, it was assessed whether patients were 'Current smoker', 'Past smoker' or 'Never smoker'. The frequencies of these categories are shown in table below. Represent the data with the help of a pie chart.

| Smoking status | Frequency |
|----------------|-----------|
| Current smoker | 42 |
| Past smoker | 21 |
| Never smoker | 63 |

- 6B. The data gives the intelligence quotient (I.Q) of 36 children. Construct frequency table along with relative frequencies using the class intervals, less than 90, 90 – 100, 100 – 110, and so on.

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| 99 | 103 | 112 | 118 | 109 | 76 | 110 | 101 | 98 | 100 | 116 | 113 |
| 139 | 105 | 120 | 106 | 113 | 121 | 99 | 103 | 98 | 117 | 109 | 130 |
| 95 | 105 | 120 | 93 | 108 | 65 | 85 | 94 | 98 | 101 | 117 | 115 |

(5+5 = 10 marks)

- 7A. Why do we use coefficient of variation? How is it different from standard deviation? Explain with an example.

- 7B. Compute the median, range and inter-quartile range for the following data:
SBP (mmHg): 120 125 121 123 125 127 122 128 123 126 122
(5+5 = 10 marks)
8. It was observed that the incubation period in days of patients with infectious hepatitis follows normal distribution with a mean of 20 days and standard deviation of 4 days. What percentage of the patients have incubation period:
- 8A. Below 12 days
8B. Between 24 and 28 days
(5 marks)
9. What is Karl-Pearson's correlation coefficient? List its properties.
(5 marks)
10. Write a note on health information system and its requirements.
(5 marks)
- 11A. Explain the terms prevalence and incidence with examples.
11B. Define crude birth rate and infant mortality rate.
(6+4 = 10 marks)
12. Define epidemiology. Enumerate its uses. Describe case series analysis.
(10 marks)



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MANIPAL UNIVERSITY
FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015
SUBJECT: GENERAL MEDICINE
(2010 BATCH)

Wednesday, June 03, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. Answer any **THREE** of the following:

- 1A. Discuss the causes, clinical features, investigations and management of hypothyroidism.
- 1B. Discuss the etiopathogenesis, clinical features, complications, investigations and treatment of rheumatic heart disease.
- 1C. Discuss the etiopathogenesis, clinical features, complications, investigations and management of pulmonary tuberculosis.
- 1D. Discuss the types, etiopathogenesis, clinical features, complications and management of diabetes mellitus.

(15 marks × 3 = 45 marks)

2. Write short notes on:

- 2A. Iron deficiency anemia
- 2B. Anti-hypertensive medications
- 2C. Protein energy malnutrition
- 2D. Complications and management of acute renal failure
- 2E. Herpes simplex infection
- 2F. Universal precautions in ICU

(5 marks × 6 = 30 marks)

3. Write short notes on: Pyoderma

(5 marks)



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MANIPAL UNIVERSITY
FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015
SUBJECT: GENERAL MEDICINE
(2011 BATCH)

Wednesday, June 03, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. **Answer any THREE of the following:**

- 1A. Discuss the causes, clinical features, investigations and management of iron deficiency anemia.
- 1B. Discuss the causes, clinical features, investigations and management of hypothyroidism.
- 1C. Classify bronchial asthma. Discuss the clinical features, investigations and management of bronchial asthma.
- 1D. Discuss the causes, clinical features, complications and management of chronic renal failure.

(15 marks × 3 = 45 marks)

2. **Write short notes on:**

- 2A. Management of needle stick injury
- 2B. Cardiopulmonary resuscitation
- 2C. Oral hypoglycemic agents and their mechanism of action
- 2D. Angina pectoris
- 2E. Obesity
- 2F. Acute respiratory distress syndrome
- 2G. Complications of hypertension

(5 marks × 7 = 35 marks)



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MANIPAL UNIVERSITY
FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015
SUBJECT: GENERAL SURGERY
(2010 BATCH)

Friday, June 05, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL questions.**

1. Long questions:

- 1A. Classify ulcers. Discuss in detail how you will manage an ischemic ulcer.
- 1B. Define shock and classify. Discuss about clinical features etiopathology and management of hemorrhagic shock.
- 1C. Discuss Hernia under following headings:
 - i) Definition
 - ii) Etiology
 - iii) Types
- 1D. Discuss clinical features of peptic ulcer. Describe management of duodenal ulcer.
- 1E. Discuss indication and complication of blood transfusion.

(10 marks × 5 = 50 marks)

2. Short Answers:

- 2A. Hyperkalemia
- 2B. Describe post operative pulmonary complications in abdominal surgery
- 2C. Discuss complications of TURP
- 2D. Define and classify sinuses.
- 2E. 70 year old male has been planned for end colostomy for Ca rectum. How you will plan his colostomy care?

(6 marks × 5 = 30 marks)



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MANIPAL UNIVERSITY

FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: GENERAL SURGERY
(2011 BATCH)

Friday, June 05, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Answer ALL questions.

1. Long questions:

- 1A. Define Shock, classify shock and discuss clinical features and management of septic shock.
- 1B. Discuss factors affecting wound healing.
- 1C. Define hernia. Discuss the clinical features and management of inguinal hernia.
- 1D. Discuss Tracheostomy under the headings – types, indications and care of tracheostomy
- 1E. Discuss the indications, operative procedure and complications of modified radical mastectomy.

(10 marks × 5 = 50 marks)

2. Short Answers:

- 2A. Lung abscess
- 2B. Tetralogy of Fallot's
- 2C. Colostomy care
- 2D. Skin grafting
- 2E. Hyperkalemia
- 2F. Physiological response of body to surgical trauma

(5 marks × 6 = 30 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.O.T./B.P.T. DEGREE EXAMINATION – JUNE 2015****SUBJECT: SOCIAL & PREVENTIVE MEDICINE AND SOCIOLOGY / COMMUNITY
MEDICINE & SOCIOLOGY
(2010 BATCH/OLD REGULATION)**

Monday, June 08, 2015

Time 10:00-13:00 Hours

Maximum Marks: 80

- ✍ Answer ALL questions.
✍ Answer SECTION 'A' and SECTION 'B' in TWO separate answer books.

SECTION 'A': SOCIAL AND PREVENTIVE MEDICINE/COMMUNITY MEDICINE : 40 MARKS✍ **Essay Question:**

1. Discuss about epidemiology and prevention of Cerebral Stroke. Write a note on rehabilitation of Stroke patients.

(10 marks)

2. **Short Answers:**

- 2A. Assessment of obesity
2B. Write a note on prevention of Accidents.
2C. What is parboiling? Mention its advantages and disadvantages.
2D. Describe the fundamental aspects of Human Immuno Deficiency Virus/Acquired Immuno Deficiency Syndrome (HIV/AIDS) control measures.
2E. Explain Iceberg phenomenon with an example.
2F. Group approach in health communication

(5 marks × 6 = 30 marks)

SECTION 'B': SOCIOLOGY : 40 MARKS

1. "Socialization is a continuous process" – Discuss, why it is important in our life.
(5+5 = 10 marks)
2. Explain the factors that have enforced man to lead a group life.
(10 marks)
3. Enumerate the importance of nutrition and its influence on health.
(5+5 = 10 marks)

4. **Write short notes on the following:**

- 4A. Characteristics of social norms
4B. Briefly explain different social security schemes in relation to the disabled in India.
(5+5 = 10 marks)



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MANIPAL UNIVERSITY

FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: OCCUPATIONAL THERAPY PRACTICE ISSUES (2011 BATCH)

Monday, June 08, 2015

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ **Answer ALL questions.**

✍ **Long Questions:**

1. Describe the phases of a therapeutic relationship and explain its importance in occupational therapy.
(7½+2½ = 10 marks)

2. Explain the structure and function of All India Occupational Therapists' Association (AIOTA).
(10 marks)

3. **Short notes:**

3A. Need for outcomes evaluation in intervention

3B. Factors determining frequency of supervision

3C. Need to maintain continuing competency and competence in occupational therapy

3D. Challenges in Problem Based Learning

(5 marks × 4 = 20 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015****SUBJECT: PSYCHIATRY AND CLINICAL PSYCHOLOGY
(2010 BATCH)**

Wednesday, June 10, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Answer ALL questions:

1. Discuss the etiology and clinical features of Schizophrenia. (20 marks)

2. Define stress and explain the impact of stress in an individual. (20 marks)

3. **Write an essay on the following:**
 - 3A. Explain the types of anxiety disorders
 - 3B. ICD and DSM classification(10 marks × 2 = 20 marks)

4. **Write short notes on the following:**
 - 4A. Cognitive model of mental disorders
 - 4B. Crisis reaction
 - 4C. Epilepsy
 - 4D. Psychosocial rehabilitation(5 marks × 4 = 20 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015****SUBJECT: PSYCHIATRY AND CLINICAL PSYCHOLOGY
(2011 BATCH)**

Wednesday, June 10, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL questions:****SECTION – A (CLINICAL PSYCHOLOGY)****1. Write Essay on:**

- 1A. Explain crisis reaction and its management.
- 1B. Define counselling. Explain different types of counseling.

(10 marks × 2 = 20 marks)

2. Write short notes on the following:

- 2A. Psychosocial rehabilitation
- 2B. Family Therapy
- 2C. Obsessive compulsive disorder
- 2D. Psychodynamic psychotherapy

(5 marks × 4 = 20 marks)

SECTION – B (CLINICAL PSYCHIATRY)**3. Write essay on:**

- 3A. Discuss the Strategies for suicide prevention.
- 3B. Clinical features of depression. Specific features of depression in the elderly.

(10 marks × 2 = 20 marks)

4. Write short notes on:

- 4A. How do you assess memory in mental status examination?
- 4B. Different grades and assessment of Insight
- 4C. Types of delusion
- 4D. Role of occupational therapy in psychiatry

(5 marks × 4 = 20 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015****SUBJECT: OCCUPATIONAL THERAPY IN PAEDIATRICS AND DEVELOPMENTAL DISABILITIES
(2010 SCHEME)**

Friday, June 12, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Answer ALL the questions.

1. Explain the occupational therapy assessment and intervention strategies for high risk infants.
(5+10 = 15 marks)
2. Define temperament. Describe the types and its significance in pediatric occupational therapy.
(3+8+4 = 15 marks)
3. Describe the domains of handwriting. Explain the acquisitional and biomechanical frame of reference based intervention for handwriting difficulties.
(5+10 = 15 marks)
4. Define and classify Mental Retardation. Explain the occupational therapy management for the same.
(3+3+9 = 15 marks)
5. **Write short notes on:**
 - 5A. Model of team dynamics in educational system
 - 5B. Describe the methods of evaluation in pediatric occupational therapy
 - 5C. Classify in-hand manipulation skills
 - 5D. Role of occupational therapy in children with Developmental Coordination Disorder
(5 marks × 4 = 20 marks)



MANIPAL UNIVERSITY**FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015****SUBJECT: OCCUPATIONAL THERAPY IN PEDIATRICS AND DEVELOPMENTAL DISABILITIES
(2011 SCHEME)**

Friday, June 12, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Explain in detail the parameters to be assessed in determining a child's equipment needs.
(20 marks)
2. Explain the role of neurodevelopmental therapy in the management of cerebral palsy.
(20 marks)
3. **Write short notes on:**
 - 3A. Outline the factors that increase the potential for seizure and mention do's and don'ts for therapists who work with a seizure disordered child.
(5+5 = 10 marks)
 - 3B. Explain any four midbrain level reflexes.
(10 marks)
 - 3C. Describe the general issues and philosophical concepts in children with mental retardation.
(10 marks)
 - 3D. Explain the factors influencing mealtime.
(10 marks)



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MANIPAL UNIVERSITY

FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: OCCUPATIONAL THERAPY IN MENTAL HEALTH
(2011 BATCH)

Monday, June 15, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

☞ Answer ALL questions.

☞ Long Essay:

1. Draw a diagram illustrating the assessment process in psychosocial occupational therapy and explain any five methods of assessment.
(5+15 = 20 marks)
2. Explain the steps involved in planning activity groups.
(20 marks)
3. Write short notes on:
 - 3A. Explain any four major occupational therapy interventions for clients with Cluster A Personality disorder.
(10 marks)
 - 3B. Explain any four occupational therapy goals in the acute phase management of schizophrenia.
(10 marks)
 - 3C. Advantages and disadvantages of behavioural frame of reference.
(5+5 = 10 marks)
 - 3D. Explain training of money management skills in clients with mental illness.
(10 marks)



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MANIPAL UNIVERSITY

FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: OCCUPATIONAL THERAPY IN MENTAL HEALTH
(2010 BATCH)

Monday, June 15, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Answer ALL questions.

✍ Long Questions:

1. Explain the advantages of group therapy and write a group protocol for a prevocational skills training group.
(5+10 = 15 marks)
2. Explain Beck's cognitive theory and discuss its application for clients with depression.
(8+7 = 15 marks)
3. Describe the training of any three daily living skills in clients with mental illness.
(15 marks)
4. Explain the steps involved in initial assessment of clients with mental illness.
(15 marks)
5. Write short notes on:
 - 5A. Occupational deprivation and occupational alienation
 - 5B. Enumerate the components of assertiveness training
 - 5C. Explain any two important occupational therapy goals for antisocial personality disorder
 - 5D. Explain any three limitations of behavioural frame of reference(5 marks × 4 = 20 marks)



Reg. No.

MANIPAL UNIVERSITY

FOURTH YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: OCCUPATIONAL THERAPY IN COMMUNITY PRACTICE
(2011 BATCH)

Wednesday, June 17, 2015

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ Answer ALL questions.

✍ Long Essay:

1. Describe the stages of paradigm shift leading to changes within a profession. (10 marks)
2. Write down description of ten important members of the rehabilitation care team. (10 marks)

3. Short Notes

- 3A. Concept of 'occupation and wellbeing'
- 3B. Educational and developmental referenced legislation
- 3C. 'Institutionalization phase' in program planning for community health
- 3D. Role of recreational therapist in CBR team

(5 marks × 4 = 20 marks)

