

MANIPAL UNIVERSITY
SIXTH SEMESTER B.A.S.L.P. DEGREE EXAMINATION – JUNE 2017
SUBJECT: B 6.3 BASIC STATISTICS

Saturday, June 10, 2017

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL questions.**

1. The following table shows tuberculin reaction measured in 206 persons who were never vaccinated. Present the data graphically by a frequency polygon.

Reaction in mm	Number of persons
8 – 10	24
10 – 12	52
12 – 14	42
14 – 16	48
16 – 18	12
18 – 20	08
20 – 22	14
22 – 24	06

(5 marks)

2. Define coefficient of variation. Find the mean, standard deviation and coefficient of variation for the following data:

Systolic BP (mmHg): 123 136 121 146 120 132 149 119 134 140

(10 marks)

3. Mid arm circumference (in cm) of 10 male children aged 6 months is as given below:

12 11 14 10 12 13 11 14 12 11

Compute median and inter-quartile range.

(8 marks)

4. Differentiate between validity and reliability.

(6 marks)

5. What are the characteristics of a good hypothesis?

(5 marks)

6. From the following data of a city during the year 2012, calculate:

- 6A. Perinatal mortality rate
- 6B. Post Neonatal mortality rate
- 6C. Crude birth rate
- 6D. Maternal mortality rate
- 6E. Infant mortality rate
- 6F. Still birth rate

Data:

Mid-year population for the year 2010	250000
Late fetal deaths	37
Number of live births	4250
Number of infant deaths	326
Number of maternal deaths	62
Number of infant deaths in the first month of life	105
Number of infant deaths within 7 days of age	75

(12 marks)

7. Serum cholesterol is an important risk factor for coronary heart disease. Serum cholesterol is approximately normally distributed with mean 220 mg/dL and standard deviation 15 mg/dL.
- 7A. If the clinically desirable range for cholesterol is < 205 mg/dL, then what proportion of people has clinically desirable levels of cholesterol?
- 7B. Some investigators feel that only cholesterol levels over 250 mg/dL indicate a high enough risk for heart disease to warrant treatment. What proportion of the population does this group represent?

(2+2 = 4 marks)

8. **Write short notes on:**

- 8A. Ratio and proportion
- 8B. Quantitative variables
- 8C. Probability sampling
- 8D. Normal distribution
- 8E. Notification of diseases
- 8F. Cross sectional studies

(5 marks \times 6 = 30 marks)



MANIPAL UNIVERSITY**SIXTH SEMESTER B.A.S.L.P. DEGREE EXAMINATION – JUNE 2017****SUBJECT: SCIENTIFIC ENQUIRY IN AUDIOLOGY AND SPEECH LANGUAGE PATHOLOGY (B 6.4)**

Tuesday, June 13, 2017

Time: 10.00-13.00 Hrs.

Max. Marks: 80

✍ **Answer the following questions. Question 11 is compulsory.**

1. Describe the need for scientific enquiry in the field of Speech-Language Pathology and Audiology.

OR

2. Describe the formulation of hypothesis. Explain the types of hypothesis with examples pertaining to the field of Speech-Language Pathology and Audiology.

(12 marks)

- 3A. Distinguish between an independent and dependent variable by giving an example of your choice in the field of Speech-Language Pathology and Audiology.

- 3B. Briefly describe any three types of measurements with suitable examples.

(6+6 = 12 marks)

OR

- 4A. Distinguish between an active and assigned variable by giving suitable example of your choice in the field of Speech-Language Pathology and Audiology.

- 4B. Describe the instrumental measures used for data collection in the field of Speech-Language Pathology or Audiology.

(6+6 = 12 marks)

5. Outline any four methods of collecting scientific data.

OR

6. Differentiate between Probability and Non-probability sampling.

(12 marks)

7. Discuss any two research designs used in the area of speech science with suitable examples

OR

8. Discuss the relevance of cross-over design in the field of Audiology.

(12 marks)

9. Discuss in detail regarding scientific report writing with reference to the field of speech and hearing.

OR

10. Elaborate on the qualities of a scientific clinician.

(12 marks)

11. Explain in not more than 2-3 sentences:

- 11A. Type II error
- 11B. Alternate Hypothesis
- 11C. Ratio scale
- 11D. Ordinal data
- 11E. Quota sampling
- 11F. Stratified random sampling
- 11G. Randomization
- 11H. Matching
- 11I. Abstract of a scientific research article
- 11J. Method in scientific experiments in audiology and SLP

(2 marks × 10 = 20 marks)



MANIPAL UNIVERSITY

SIXTH SEMESTER B.A.S.L.P. DEGREE EXAMINATION – JUNE 2017

SUBJECT: NEUROGENIC LANGUAGE DISORDERS IN ADULTS (B 6.1)

Thursday, June 15, 2017

Time: 10.00-13.00 Hrs.

Max. Marks: 80

Answer the following questions:

- 1A. Describe the anatomy of medial and inferior view of the cortex.
1B. Write briefly on angular and supra marginal gyrus.

OR

- 2A. Describe the functional evidences for language and cerebral dominance.
2B. Briefly explain on the functions of right and left hemisphere.

(8+4 = 12 marks)

- 3A. Describe the characteristics of Global Aphasia.
3B. Add a note on neuroanatomical bases of Global Aphasia

OR

- 4A. Describe the types of acquired Alexia.
4B. Explain Agnosia.

(8+4 = 12 marks)

- 5A. Describe the applications of neuroimaging techniques in the field of Aphasiology.
5B. Write short notes on MRI.

OR

- 6A. Describe the assessment of auditory verbal comprehension in Aphasia.
6B. Write briefly on vagus nerve and hypoglossal nerve examination.

(6+6 = 12 marks)

7. Describe the characteristics seen in Right Hemisphere damage.

OR

8. Describe the linguistic and cognitive deficits seen in Individuals with TBI.

(12 marks)

9. Describe the AAC in the management of Aphasia.

OR

10. Describe the rationale and the procedure of melodic intonation therapy.

(12 marks)

11. Write short notes on:

- 11A. Neuron
11B. Association fibers
11C. Dichotic listening test & cerebral dominance
11D. Types of Memory
11E. Neologisms
11F. Unitary disorder
11G. Agrammatism
11H. Purpose of Revised token test
11I. Frontotemporal dementia
11J. Computer assisted treatment

(2 marks × 10 = 20 marks)



MANIPAL UNIVERSITY**SIXTH SEMESTER B.A.S.L.P. DEGREE EXAMINATION – JUNE 2017****SUBJECT: NOISE MEASUREMENTS AND HEARING CONSERVATION (B 6.2)**

Saturday, June 17, 2017

Time: 10.00 - 13.00 Hrs.

Max. Marks: 80

Answer the following questions:

1. Describe the pathological changes in human ears due to noise exposure.

OR

2. Define noise and classify it based on spectral characteristics and duration.

(12 marks)

3. Discuss the instrumentation and procedure of manual Audiometry.

OR

4. Comment on the findings of PTA, HFA and Bekesy Audiometry in NIHL.

(12 marks)

5. Design a noise measurement program at an airport.

OR

6. How would you go about measurement of noise levels of a moving vehicle?

(12 marks)

7. What is HCP? Describe the steps involved in comprehensive HCP.

OR

8. Compare and contrast various types of EPDs in terms of attenuation, comfort, durability, stability, hygiene and temperature tolerance.

(12 marks)

9. Explain any three methods of disability calculation.

OR

10. What is DRC? Explain the factors to be considered in claim evaluation.

(12 marks)

11. Short notes on:

11A. NC curves

11B. Audio analgesia

11C. Brief tone Audiometry

11D. Baseline Audiogram

11E. Dosimeter

11F. Weighting scales

11G. NRR

11H. Special EPDs

11I. CHABA

11J. EPA

(2 marks × 10 = 20 marks)

