

Reg. No.

MANIPAL UNIVERSITY

**THIRD YEAR BASLP (NR)/B.Sc. M.L.T./B.Sc. R.T./B.Sc. C.V.T./B.Sc. M.R.T/
B.Sc. R.R.T. & D.T. DEGREE EXAMINATION – JUNE 2014**

**SUBJECT: BASIC STATISTICS & SCIENTIFIC ENQUIRY IN AUDIOLOGY AND
SPEECH LANGUAGE PATHOLOGY/BIOSTATISTICS/RESEARCH METHODOLOGY
AND STATISTICS/BIOSTATISTICS AND RESEARCH METHODOLOGY**

Monday, June 02, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. What is the role of Statistics in Health Sciences?
(5 marks)
2. What do you mean by reliability and validity? Distinguish the two.
(5 marks)
3. Describe quantitative variables.
(5 marks)
4. Classify the following into different scales of measurements (Nominal, Ordinal, Interval and Ratio).
4A. Marital status
4B. Age
4C. Blood pressure
4D. Temperature (°C)
4E. Stages of cancer
(5 marks)
5. List the reasons for sampling.
(5 marks)
- 6A. Construct a frequency polygon for the fasting blood glucose levels of 30 children given in the following table:

Blood glucose level in mg/dl	Number of children
55 – 60	5
60 – 65	10
65 – 70	8
70 – 75	4
75 – 80	3

6B. Given below are the weights in grams of 30 oysters. Construct frequency table taking class intervals 5 – 7, 7 – 9, 9 – 11, and so on and calculate relative and cumulative frequencies.

12.92	6.79	9.66	12.49	12.99	10.73	5.22	7.91	7.67	8.87
11.4	9.62	7.02	10.12	8.09	15.17	7.75	6.93	11.27	13.68
17.42	15.5	12.56	10.64	14.09	15.5	10.71	13.63	10.98	14.27

(5+5 = 10 marks)

7A. Define coefficient of variation. Mean and standard deviation of height of a group of girls is 64 and 2 inches respectively. The mean and standard deviation of their Hb level is 12 and 1 gm% respectively. Find out which variable data is more consistent.

7B. Calculate the three measures of central tendency for the following data:

Weight (in kg): 55 59 56 55 61 54 64 55 53 57

(5+5 = 10 marks)

8. Hemoglobin levels (in gm %) of medical students in a city follows normal distribution with mean 13 and standard deviation 2. What is the proportion of students who have hemoglobin level:

8A. Above 11 gm%

8B. Between 13 and 17gm%

(5 marks)

9. Describe various types of correlation with the help of scatter diagrams.

(5 marks)

10. Enumerate the uses and sources of health information system.

(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. What is descriptive epidemiology? Discuss the different types of descriptive epidemiological studies with merits and demerits of each one.

(10 marks)



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 - 4D. Temperature (°C)
 - 4E. Stages of cancer(5 marks)
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75 – 80	3

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THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – JUNE 2014

**SUBJECT: PAPER I – ECHOCARDIOGRAPHY
(COMMON FOR OR & 2011 SCHEME)**

Wednesday, June 04, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer all the questions.**

✍ **Draw the diagrams wherever necessary.**

1. Explain various methods of LV diastolic function assessment in detail.
2. Explain the various methods of pulmonary pressure assessment.

(20 marks × 2 = 40 marks)

3. **Write short notes on:**

- 3A. Difference between PW and CW Doppler
- 3B. Echo in trans position of great arteries
- 3C. Infective endocardities
- 3D. LA function assessment
- 3E. Aortic regurgitation severity assessment

(8 marks × 5 = 40 marks)



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THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – JUNE 2014

**SUBJECT: PAPER II – CARDIAC CATHETERISATION AND INTERVENTION
(COMMON FOR OR & 2011 SCHEME)**

Friday, June 06, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

- ✍ **Answer ALL the questions.**
- ✍ **Draw the diagram wherever necessary.**

1. Explain cardiac catheterization and Intervention in Ventricular septal defect.
2. Explain the role of FFR in coronary intervention and write a note on thrombus aspiration catheters.

(20 marks × 2 = 40 marks)

3. **Write short notes on:**

- 3A. Cath in Transposition of great arteries
- 3B. Renal artery stenting
- 3C. Balloon aortic valvotomy
- 3D. IVC filter
- 3E. Antiplatelets

(8 marks × 5 = 40 marks)



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THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – JUNE 2014

**SUBJECT: PAPER III – CLINICAL CARDIOLOGY
(COMMON FOR OR & 2011 SCHEME)**

Monday, June 09, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

- ✍ **Answer ALL the questions.**
- ✍ **Draw the diagram wherever necessary.**

1. Explain cardiac tumors and write myxoma in detail. (20 marks)

2. Explain clinical features, ECG, X-ray and management of Acute MI. (20 marks)

3. **Write short notes on:**

- 3A. Double outlet RV
- 3B. Hills sign, dicrotic pulse
- 3C. Cardiac resynchronization therapy (CRT)
- 3D. Second Heart sound
- 3E. ALCAPA

(8 marks × 5 = 40 marks)



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(COMMON FOR OR & 2011 SCHEME)**

Monday, June 09, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

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✍ **Draw the diagram wherever necessary.**

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2. Explain clinical features, ECG, X-ray and management of Acute MI. (20 marks)
3. **Write short notes on:**
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 - 3B. Hills sign, dicrotic pulse
 - 3C. Cardiac resynchronization therapy (CRT)
 - 3D. Second Heart sound
 - 3E. ALCAPA

(8 marks × 5 = 40 marks)

