MANIPAL UNIVERSITY

THIRD YEAR B. Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: PAPER IV - BIOSTATISTICS AND RESEARCH METODOLOGY

Monday, May 28, 2012

Time: 10:00-13:00 Hrs.   Max. Marks: 80

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1. What are the principles of qualitative research?

(5 marks)

2. Write a note on Validity and Reliability.

(5 marks)

3. Describe qualitative and quantitative variables with examples.

(5 marks)

4. Classify the following into different scales of measurements (Nominal, Ordinal, Interval and Ratio).

4A. Weight

4B. Temperature (°K)

4C. Stages of Cancer

4D. IQ

4E. Telephone number

(5 marks)

5. Explain simple random sampling.

(5 marks)

6A. Present the data given below on percentage of children benefitted by polio immunization in a country from 2006 – 2010 by a simple bar diagram.

Year	2006	2007	2008	2009	2010
Polio (%) Immunization	80	83	88	95	98

6B. Form a frequency table along with relative frequencies for the ages of 48 patients given below. (Class intervals: 0–15, 15–30, 30–45, so on).

31	07	39	43	62	30	38	10	36	29	40	22
40	65	15	30	39	53	47	64	33	46	17	32
36	42	76	50	30	34	25	36	39	36	42	47
32	39	24	57	37	47	27	43	43	54	40	39

(5+5 = 10 marks)

7A. List the merits and demerits of mean and median.

7B. Following are the weights (in kg) of a sample of 10 students

45   64   60   69   46   64   61   65   52   54

Compute range and standard deviation of the above data.

(5+5 = 10 marks)

8. Suppose the systolic blood pressure of adult males is approximately normally distributed with mean 130 mmHg and standard deviation 10 mmHg. In a sample of 600 apparently normal adult males, how many will be with systolic blood pressure?

8A. More than 140 mmHg

8B. In the range 120 – 150 mmHg

(5 marks)

9. How do you interpret correlation with the help of scatter diagram?

(5 marks)

10. Discuss sample registration system as a source of health information system.

(5 marks)

11. Distinguish between incidence and prevalence with an example. Write a short note on rates and ratios.

(10 marks)

12. Define descriptive epidemiology. Describe the different methods in epidemiology.

(10 marks)

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THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: PAPER I - ECHOCARDIOGRAPHY

Wednesday, May 30, 2012

Time: 10:00-13:00 Hrs.   Max. Marks: 80

✍ **Answer all the questions, label the diagram wherever necessary.**

1. Approach to Congenital Heart Disease by Echocardiography.

(20 marks)

2. Explain the role of Echocardiography in Diagnosis and management of Pericardial Disease.

(20 marks)

3. **Short Notes:**

3A. PISA method.

3B. Continuous wave Doppler.

3C. Mitral valve M-mode.

3D. Dobutamine Stress Echo.

3E. Contrast Echo.

(8×5 = 40 marks)

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THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2012
SUBJECT: PAPER II – CARDIAC CATH AND INTERVENTION

Friday, June 01, 2012

Time: 10:00-13:00 Hrs.   Max. Marks: 80

✍ **Answer all the questions, Draw the diagram wherever necessary.**

1.   Explain cardiac cath and Intervention in CCP and Restrictive Cardiomyopathy.

(20 marks)

2.   Explain cath, angiography and Intervention in PDA.

(20 marks)

3.   **Write Short notes:**

3A. Cath and Intervention in Aortic Stenosis.

3B. Pericardiocentesis.

3C. Slow flow/no flow phenomenon.

3D. Instent Restenosis.

3E. VDDR Pacemaker.

(8×5 = 40 marks)

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THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2012
SUBJECT: PAPER III – CLINICAL CARDIOLOGY

Monday, June 04, 2012

Time: 10:00-13:00 Hrs.   Max. Marks: 80

✎   **Answer all the questions, label the diagram wherever necessary.**

1. Explain coronary artery anatomy in normal and various Disease conditions. Write briefly on ALCAPA (anomalous origin of LCA from PA).

   (20 marks)

2. Enumerate the causes of Continuous murmur. Write briefly on clinical Examination findings in PDA.

   (20 marks)

3. **Write short notes on:**

3A. Arrythmogenic RV Dysplasia.

3B. Chronic constrictive Pericardities.

3C. Grading of severity of angina.

3D. Detection of Ventricular enlargement in Chest X-ray and ECG.

3E. Diuretics.

   (8×5 = 40 marks)