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MANIPAL UNIVERSITY

THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PAPER I - ECHOCARDIOGRAPHY

Wednesday, May 29, 2013

Time: 10:00-13:00 Hrs.

Max. Marks: 80

- ✍ **Answer all the questions.**
- ✍ **Draw the diagrams wherever necessary.**

1. How do you assess the LV function by Echocardiographically?
2. Echocardiography in Endocardial cushion defect

(20×2 = 40 marks)

3. **Write short notes on:**

- 3A. Automated functional imaging
- 3B. Echocardiography in pulmonary stenosis
- 3C. Echocardiography in congenitally corrected transposition of great arteries
- 3D. Echocardiography in Cardiac Tamponade
- 3E. Echo in restrictive cardiomyopathy

(8×5 = 40 marks)



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THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PAPER II – CARDIAC CATHETERISATION AND INTERVENTION

Friday, May 31, 2013

Time: 10:00-13:00 Hrs.

Max. Marks: 80

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

1. Describe cardiac catheterization and angiography in L->R Shunt.
2. Explain cath and angio in Hypertrophic cardiomyopathy. Write in detail about the steps of Alcohol septal ablation.

(20×2 = 40 marks)

3. **Write short notes on:**

- 3A. Cardiac catheterization and angiography in Aortic Regurgitation
- 3B. Ballon Mitral Valvotomy
- 3C. Bifurcation stenting Strategies
- 3D. Rotablator
- 3E. Implantable Cardioverter Defibrillator

(8×5 = 40 marks)



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THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PAPER III – CLINICAL CARDIOLOGY

Monday, June 03, 2013

Time: 10:00-13:00 Hrs.

Max. Marks: 80

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

1. Explain the clinical features, ECG, X-Ray findings and classification of VSD. (20 marks)
2. Explain the clinical features, X-Ray, ECG and treatment options of Mitral Stenosis. (20 marks)
3. **Write short notes on:**
 - 3A. Pulses bisferences
 - 3B. Restrictive cardiomyopathy
 - 3C. Takayasu's disease
 - 3D. Tricuspid Atresia
 - 3E. Bio-Prosthetic valve

(8×5 = 40 marks)



MANIPAL UNIVERSITY

THIRD YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PAPER IV:BIOSTATISTICS AND RESEARCH METHODOLOGY

Monday, May 27, 2013

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. List the principles of qualitative research. (5 marks)
2. Describe internal validity and face validity. (5 marks)
3. What is the difference between qualitative and quantitative variables? Explain with examples. (5 marks)
4. Classify the following into different scales of measurements (Nominal, Ordinal, Interval and Ratio).
 - 4A. Address
 - 4B. Height
 - 4C. Heart rate
 - 4D. Ph value
 - 4E. Pain score
 (5 marks)
5. Explain judgment sampling. (5 marks)
- 6A. In a study of 252 patients admitted in a hospital, it was assessed whether patients were 'likely to be discharged', 'possibly to be discharged' or 'unlikely to be discharged'. The frequencies of these categories are shown in table below. Represent the data with the help of a pie chart.

Discharge	Frequency
Unlikely	126
Possibly	84
Likely	42

- 6B. Following are the fasting blood glucose level (mg/dl) of 30 children. Prepare a frequency table with 5 equal class intervals. Also find the relative frequencies.

62	65	56	64	63	77	72	79	62	73
57	57	59	67	62	61	61	60	55	75
57	65	75	65	68	61	60	68	69	67

(5+5 = 10 marks)

7. Systolic blood pressure levels (mmHg) of ten patients who visited the OPD is as follows. Calculate mean, median, inter-quartile range and standard deviation.

105 120 125 112 125 120 115 130 116 101

(10 marks)

8. Given the mean and standard deviation of weight of new born babies are 3 kg and 0.5 kg respectively. Assuming normality estimate the percentage of newborns with weight.
- 8A. More than 2.5 kg
- 8B. Between 2.5 kg and 4 kg
- (5 marks)
9. Enumerate the properties of correlation with the help of scatter diagrams.
- (5 marks)
10. Describe health information system and its uses.
- (5 marks)
11. Define prevalence and incidence with examples. Distinguish between ratio and proportion.
- (10 marks)
12. What is descriptive epidemiology? Enumerate its uses and explain case series studies.
- (10 marks)

