



## MANIPAL ACADEMY OF HIGHER EDUCATION

**SECOND SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - MAY/JUNE 2018**  
**SUBJECT: BCVT 102 - ADVANCED ECG & HOLTER MONITORING**  
**(2016 RV SCHEME)**

**Monday, June 04, 2018 (14.00 - 16.00)**

**Answer all the questions.**

**Draw the diagram wherever necessary.**

**Marks: 50**

**Duration: 120 mins.**

- |     |  |      |
|-----|--|------|
| 1)  | Describe AVRT briefly.   | (10) |
| 2)  | Elaborate the diagnostic approach to narrow complex tachycardia. | (10) |
| 3A) | Describe indication and clinical application of SAEKG.           | (5)  |
| 3B) | Give a brief description on ambulatory ECG recording.            | (5)  |
| 3C) | Explain the Brugada algorithm in diagnosis of VT.                | (5)  |
| 3D) | Describe SA exit blocks in detail.                               | (5)  |
| 4A) | Write the ECG findings in typical AVNRT.                         | (2)  |
| 4B) | What is Tachy-Brady syndrome?                                    | (2)  |
| 4C) | Write the ECG changes in fascicular VT.                          | (2)  |
| 4D) | Define primary and secondary VT.                                 | (2)  |
| 4E) | Define fast conducting WPW.                                      | (2)  |

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SECOND SEMESTER BPT / B.Sc. C.V.T./ B.Sc. R.T./ B.Sc. M.I.T./ B.Sc. RRT&DT / BOPT / B.O.T./ B.Sc. N.M.T./B.Sc. M.L.T./ B.Sc. P.F.T.  
DEGREE EXAMINATION - MAY/JUNE 2018

SUBJECT : BIOCHEMISTRY / GENERAL BIOCHEMISTRYII  
(BIOC 102/BPT 106; BIOC 102; BIOC 102/BRES 108; BIOC 102/BMIT 106; BIOC 102/BDT 106; BIOC 102/ BOPT 104; BIOC 102/BOT 106;  
BIOC 102; BIOC 102/BMLT 104; BIOC 102)  
(2016 RV & 2016 SCHEME)  
Friday, June 01, 2018 (14.00 - 16.00)

Answer ALL questions.

Marks: 50

Duration: 120 mins.

- 1) Describe in detail the steps of gluconeogenesis from lactate. Mention the significance of this process. (10)  
2A) Classify enzymes and name one enzyme in each class. (6)  
2B) Name four diagnostic enzymes and mention their clinical importance. (4)

3) Answer the following questions:

- 3A) Define electron transport chain. Give a diagrammatic representation of its complexes with their components in their order of arrangement. (5)  
3B) Write the site, subcellular site and reactions of  $\beta$ -oxidation of fatty acyl CoA. (5)  
3C) Describe the structure of DNA with a suitable diagram. (5)  
3D) Write the reactions of urea cycle. (5)

4) Answer the following:

- 4A) Name two glycogen storage disorders and mention the defective enzymes. (2)  
4B) Mention one example and one function each for a homopolysaccharide and a heteropolysaccharide. (2)  
4C) Define the terms replication and translation. (2)  
4D) List four factors affecting basal metabolic rate (BMR). (2)  
4E) Name two water soluble vitamins and mention one function for each. (2)

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