

**B.TECH. SEM -VII BIO MEDICAL 2014 COURSE (CBCS) :**  
**SUMMER - 2018**  
**SUBJECT: ELECTIVE-I : SOFTWARE TOOLS FOR BIO SIGNAL ANALYSIS**

Day: **Thursday**  
Date: **24/05/2018**

**S-2018-2533**

Time: **02.30 PM TO 05.30 PM**  
Max Marks. 60

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**N.B. :**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Assume suitable data, if necessary.
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**Q.1** What is MATLAB? Explain its features with diagrammatic representations. **(10)**

**OR**

**Q.1** What are the various style options available in MATLAB? Give example of each. **(10)**

**Q.2** Draw and explain VB integrated development environment. **(10)**

**OR**

**Q.2** What do you mean by database? Why it is necessary to connect VB to database. Write the queries using SQL. **(10)**

**Q.3 a)** Enlist and explain components of Vis. **(05)**

**b)** What is sub VI? Explain its function in LabVIEW. **(05)**

**OR**

**Q.3** Explain WHILE loop using LabVIEW with suitable example **(10)**

i) Stop if True

ii) Continue if True

**Q.4 a)** What are the features of the use of DAQ<sub>max</sub> in LabVIEW? **(05)**

**b)** Comment on Intermediate VIs **(05)**

**OR**

**Q.4** What are the basic requirements of data acquisition board in LabVIEW? Explain the features of simple VIs. **(10)**

**Q.5** Where FIR filters are used? List parts of FIR filter design and explain the basic window function. **(10)**

**OR**

**Q.5** Explain rectangular window function for FIR filter design for LP, HP, BP, and BS filters. **(10)**

**Q.6** What are the ECG compression techniques? Give its importance in the field of biomedical **(10)**

**OR**

**Q.6** Write short notes on: **(10)**

i) Reconstruction of ECG signal

ii) Removal of 50Hz noise from ECG signal

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