No. of Printed Pages : 2

BIEL-026

DIPLOMA – VIEP – ELECTRONICS AND COMMUNICATION ENGINEERING (DECVI) / ADVANCED LEVEL CERTIFICATE COURSE IN ELECTRONICS AND COMMUNICATION ENGINEERING (ACECVI)

Term-End Examination

00906

June, 2016

BIEL-026 : PCB DESIGN AND TESTING

Time : 2 hours *Maximum Marks : 70*

Note : *Attempt any **five** questions. All questions carry equal marks.*

1. (a) Explain briefly the testing procedure of transistors using a multimeter. *7*

(b) Explain the working of SCR. *7*

2. Draw the block diagram of a digital multimeter. What are the advantages of a digital multimeter over an analog multimeter ? *14*

3. What are the various steps involved in the design of a single-sided PCB for a discrete voltage regulator ? *14*

4. (a) Explain the procedure for measuring waveform parameters by a dual trace oscilloscope. 7

(b) What do you mean by passive components ? Explain the testing procedure of passive components. 7

5. What do you mean by manual artwork ? Explain its procedure. 14

6. (a) Explain the steps for PCB fabrication techniques. 7

(b) What is the need for the etching process during PCB design ? Explain various types of etching solutions. 7

7. (a) Draw the block diagram and circuit diagram of a 12 volts power supply. 7

(b) What do you mean by soldering ? What are the precautions to be taken care of during the soldering process ? 7

8. Write short notes on any ***two*** of the following : $2 \times 7 = 14$

(a) MATLAB

(b) Proteus

(c) Multi-Sim
