

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

**Term-End Examination**

**December, 2015**

**BIEL-026 : PCB DESIGN AND TESTING**

*Time : 2 hours*

*Maximum Marks : 70*

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**Note :** Attempt *five* questions in all. All questions carry equal marks.

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1. (a) What do you mean by signal generator ?  
Also explain its working. 7
- (b) Draw and explain the V – I characteristics  
of a diode. 7
2. Draw the block diagram of an analog multimeter.  
What are the advantages of a digital multimeter  
over an analog multimeter ? 14
3. (a) What are the various specifications for  
signal generators ? Also explain its  
limitations. 7

- (b) What do you mean by passive components ?  
Explain the testing procedure of passive components and define their applications. 7
4. What do you mean by computer aided artwork ?  
Explain the different steps involved in computer aided artwork. 14
5. (a) Draw the block diagram and circuit diagram of a 5 volt power supply. 7
- (b) What are the advantages of etching process ? Give the names of various types of etching solutions. 7
6. Explain double-sided PCB. What are the differences between double-sided PCB and single-sided PCB ? 14
7. Write short notes on any **two** of the following :  $2 \times 7 = 14$
- (a) PSPICE
- (b) Simulink
- (c) MATLAB
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