

**DIPLOMA - VIEP - ELECTRONICS &  
COMMUNICATION ENGINEERING - III SEM  
(DECVI) / ADVANCED LEVEL CERTIFICATE  
COURSE IN ELECTRONICS &  
COMMUNICATION ENGINEERING (ACECVI)**

**Term-End Examination**

**June, 2013**

**BIEL-026 : PCB Testing & Designing**

*Time : 2 hours*

*Maximum Marks : 70*

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**Note :** (i) *Attempt any five questions.*

(ii) *Each question carries equal marks.*

(iii) *All questions are to be answered in English only.*

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| 1. | (a) | Define active and passive components.  | 7  |
|    | (b) | Explain the computer aided artwork for PCB design.   | 7  |
| 2. | (a) | Explain the use of digital multimeter in trouble shooting and testing with help of suitable example. | 7  |
|    | (b) | Explain the procedure for making PCB layout.   | 7  |
| 3. |     | Explain in general, mechanical and electrical consideration while checking the PCB layout.           | 14 |

4. (a) Explain etching operation with cupric chloride. 7  
(b) Explain briefly about Solder and Flux. 7
5. (a) Explain testing procedure of transistor using multimeter. 7  
(b) Explain soldering technique with the help of suitable example. 7
6. (a) Explain briefly step involved in the PCB fabrication. 7  
(b) Explain wave soldering method. 7
7. (a) What are the general consideration for a good layout design ? 7  
(b) Explain the artwork and layout for PCB. 7
8. Write short notes on *any two* of the following : **2x7=14**  
(a) Protus  
(b) Simulink  
(c) MATLAB
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