

**DIPLOMA – VIEP – ELECTRONICS AND
COMMUNICATION ENGINEERING (DECVI)**

00769

Term-End Examination

June, 2014

BIEL-037 : MAINTENANCE OF ELECTRONIC EQUIPMENT

Time : 2 hours

Maximum Marks : 70

Note : Attempt *five* questions. Question no. 1 is compulsory. Use of scientific calculator is permitted.

1. (a) Define the terms Mean time to fail and Mean time to repair.
- (b) What is the importance of Log book, Proforma for recording specifications in maintenance procedure ?
- (c) Discuss the preventive maintenance.
- (d) Comment on fault establishment in trouble-shooting procedure. $4 \times 3 \frac{1}{2} = 14$

2. Explain Thermal acceleration and Electrical acceleration. Also state the need and difference between the above two accelerations. 14

3. (a) What are equipment service options ? Also discuss the types of contract in detail. 7
- (b) What is the role of service manual and reference library in the process of maintenance management ? 7

4. (a) Explain the role of visual inspection in trouble-shooting procedure. 7
- (b) Discuss the signal tracing and functional analysis. 7
5. Discuss different types of testing in detail, for trouble-shooting procedure. 14
6. (a) Discuss the trouble-shooting techniques in detail. 7
- (b) What is signal injection and voltage analysis in data manual ? 7
7. Explain traditional bathtub reliability curve with suitable diagram. 14
8. Write short notes on any *four* of the following :
- $$4 \times 3 \frac{1}{2} = 14$$
- (a) Damp heat acceleration
- (b) Work bench
- (c) Diagnostic software
- (d) Visual inspection
- (e) Fault finding aids
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