

B.Prod.E 4th Year 1st Semester Examination 2025

Subject: Plant and Maintenance engineering

Time: 3 Hours

Marks:100

Answer any five questions

1. Describe Brown and Gibson model (1972) with an example. (20)
2. Expound the steps required for selection of a plant location by AHP with a suitable example. (20)
3. Explain assembly line balancing problem (ALBP) with an example known to you. (20)
4. Elucidate different methods of calculating techno economic life of assets used in different industries. (20)
5. Show the general expression of reliability function of an engineering system. Also explain MTTF. (20)
6. Explicate FTA with an example, known to you, during your internship program. (20)
7. Discuss path set and cut set for a bridge type network model. (20)
8. Highlight various maintenance strategies used in industries. (20)
9. Write short notes on any two: (10x2=20)
 - a) Kaizen
 - b) Terotechnology
 - c) Replacement analysis
 - d) Objectives of maintenance
 - e) Safety analytics