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ET-523(B)

**B. TECH. CIVIL CONSTRUCTION
MANAGEMENT**

Term-End Examination

June, 2019

**ET-523(B) : OPERATION AND MAINTENANCE OF
CONSTRUCTION EQUIPMENTS**

Time : 3 Hours

Maximum Marks : 70

*Note : Attempt any seven questions. All questions
carry equal marks. Use of Scientific
Calculator is permitted.*

1. What are the objectives of equipment management ? Explain the responsibilities of equipment manager with his limitations. 10
2. What are the causes of breakdown in construction equipment ? What are its effects ? How do you handle them ? 10
3. (a) Why the output during night shifts is less than that in day ? How the target output is used to determine the peak requirement of equipment ? 5

(A-43) P. T. O.

- (b) How does the temperature and atmospheric pressure affect the rated output of a machine ? 5
4. Explain the elements of cost of maintenance. Discuss the cost-benefit relations in maintenance. 10
5. Enumerate the various features to be considered in plannings of a project. What do you understand by job, material, labour equipment scheduling ? Prepare a model schedule for this. 5+5
6. Distinguish between routine maintenance and periodical maintenance ? How are these different from the preventive maintenance ? Describe the objectives of these *three* types of maintenances. 10
7. Why high co-ordination is required in maintenance programme ? How do you take decision on 'replacement or repair' ? Discuss with some examples. 10
8. With the help of a model sheet, explain the information that can be sought from unit log book of maintenance. Why should a record of POL be maintained ? 10

9. With the help of neat sketches, explain the principles and operation of (a) reciprocating pump (b) centrifugal pump. Compare their merits and demerits. 5+5
10. (a) What are the characteristics and functions of air cleaners ? 5
- (b) Explain the construction and working of grout mixer. 5