

B.Tech. Civil (Construction Management)

Term-End Examination

December, 2010

**ET-523 (B) : Operation and
Maintenance of Construction Equipment**

Time : 3 hours

Maximum Marks : 70

Note : Attempt any seven questions. Use of calculator is allowed.

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1. (a) How will you standardize the procurement system for acquiring construction equipment ? 5+5
(b) What are the responsibilities of an equipment manager ?
 2. (a) What ways do you know by which equipment can be financed ? Describe them in brief. 5+5
(b) Why do breakdowns occur in construction equipment ? How will you handle breakdowns ? Explain.
 3. (a) When do you require raw, clean, and treated water on a construction project ? Explain. 5+5
(b) Explain spare parts inventory ? What are the essentials of equipment management ?
 4. (a) What are the most commonly adopted maintenance routines ?
(b) When is major remedial repair carried out on an equipment ? 5+5

5. (a) What are the characteristics of a rotary pump? What factors affect the performance of a pump? 5+5
- (b) How are IC engines classified? How is the performance of an IC engine tested?
6. (a) What do you understand by turbo charging? Why is turbocharging necessary? 5+5
- (b) What are the various lubricants used in a construction machine?
7. (a) List the various types of grout pumps. Explain working of any one of them 5+5
- (b) What are the advantages and dis-advantages of drop hammer?
8. (a) What are the Jetting piles and how are they driven? 5+5
- (b) What information will you need to select a pump for a particular Job.?
9. (a) What is a rig? Explain the crane mounted rigs. 5+5
- (b) What are the problems in planning for electric supply of a construction project?
10. Write short notes on any five : 5x2=10
- (a) Depreciation
- (b) Cash flow analysis
- (c) Personnel training
- (d) Computer Records
- (e) Drainage pump
- (f) Cooling system
- (g) Types of lubricant
- (h) Target out put.
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