## B.Tech. Civil (Construction Management) /
## B.Tech. Civil (Water Resources Engineering)
## Term-End Examination
## June, 2017

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### ET-524(B) : CONSTRUCTION MANAGEMENT – I

*Time : 3 hours*　　　　　　　　　*Maximum Marks : 70*

**Note :** *Question no.* **1** *is* **compulsory**. *Attempt any* **four** *questions from the remaining. All questions carry equal marks.*

1. Draw the network of a project comprising 9 tasks. Tasks A, C and D commence at the same time. B follows completion of A. Task G succeeds B and D. Task E depends on the completion of D and is succeeded by F. Task H begins after C and A are completed. Task J follows completion of B. Tasks F, G, H, J are final tasks.　14

2. (a) What do you understand by "site organisation" ? What is its significance ?　6

(b) During site organisation, what points will you keep in mind for the following ? 4×2=8

    (i)    Design of surface drainage

    (ii)   Siting for labour camp

    (iii)  Storage of cement

    (iv)  Site protection

3. (a) Explain the terms 'Disputes' and 'Claims' used in a construction contract. 6

   (b) In your opinion, what are the problems generally faced by the client and contractors in construction contracts and how can these be minimized ? 8

4. Explain the term "Budget Cost Analysis". With the help of a neat diagram and standard parameters, explain the terms "Cost Variance Index" and "Schedule Variance Index". How do you interpret them ? 14

5. Differentiate between any **two** of the following : 2×7=14

   (a) PERT and CPM

   (b) Lumpsum and Item-rate contract

   (c) Direct Overhead Costs and Indirect Overhead Costs

**6.** (a) What is a contract ? What are its essential features ? 6

   (b) Explain the functions of the following earth moving plants : $4 \times 2 = 8$

   (i) Angle dozer

   (ii) Motor grader

   (iii) Scraper

   (iv) Sheet foot roller

**7.** Write short notes on the following : $4 \times 3\frac{1}{2} = 14$

   (a) Sectional Elevation and Specialised Drawings

   (b) Interference, Free and Total Floats

   (c) Liquidated Damages

   (d) Duration Estimation of an Activity

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