



Printed Pages : 3

TCE – 604

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 0060

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--

### B. Tech.

(SEM. VI) EXAMINATION, 2006-07

### ESTIMATION & CONSTRUCTION MANAGEMENT

Time : 3 Hours]

[Total Marks : 100

- Note :
- (i) Attempt all questions.
  - (ii) In case of numerical problems assume data wherever not provided.
  - (iii) Be precise in your answer.

- 1 Attempt any **four** parts of the following: **5×4=20**
- a) Discuss different types of estimates in short.
  - b) Write general specifications of 1<sup>st</sup> class building.
  - c) Write detailed specifications of 1:4:8 cement concrete in foundation.
  - d) What are different methods of estimation? Which method you adopt for octagonal bay front building ?
  - e) Calculate the earthwork in excavation of foundation for a room of internal size 5m × 4 m with 300 mm thick walls, the width and depth of the foundation being 700 mm and 900 mm respectively.
  - f) Enumerate general items of work and mention their units of measurement for building construction.

V-0060]

1

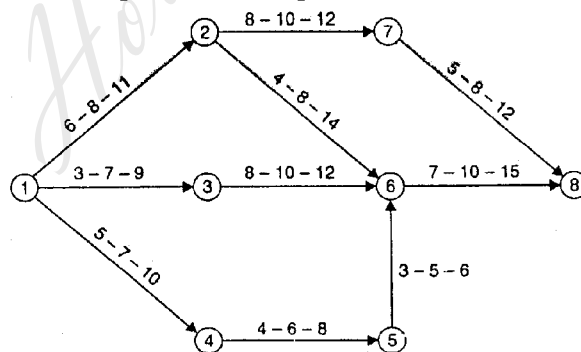
[Contd...

2 Attempt any **four** parts of the following : **5×4=20**

- a) What do you understand by ‘analysis of rates’. Discuss its importance.
- b) What is a ‘work charged establishment’ ? Discuss its importance with respect to regular establishment.
- c) Work out analysis of rates for 1:2:4 R.C.C work in slab.
- d) Discuss the procedure followed regarding adoption of market rates and cost indices with reference to P.W.D schedule of rates.
- e) Discuss briefly the relative merits and demerits of different methods of valuation.
- f) Work out analysis of rates for 25 mm thick D.P.C

3 Attempt any **two** parts of the following: **10×2=20**

- a) What are main advantages the network method have over the conventional methods of planning and scheduling?
- b) The network for a certain project is shown in **fig.1**. Determine the expected time for each of the path. Which path is critical ?



**Fig. 1**

V-0060]

[Contd...

- c) Explain in brief of the following :
- i) AOA diagram
  - ii) Standard deviation
  - iii) Most likely time estimate
  - iv) Latest allowable occurrence time.
- 4** Attempt any **two** parts of the following : **10×2=20**
- a) Explain the methods of time cost optimization of project network.
  - b) What is need of financial management? Describe in short different types of financing.
  - c) Explain the following in brief :
    - i) Project monitoring
    - ii) Time value of money
    - iii) Depreciation
    - iv) Equivalence concept.
- 5** Attempt any **two** parts of the following : **10×2=20**
- a) What are the different types of engineering contracts? What are the essential documents required in a contract?
  - b) Write a suitable tender notice for the construction of an office building for the value of rupees 130 lakhs.
  - c) Explain the following :
    - i) Earnest money
    - ii) Work order
    - iii) Evaluation of tender
    - iv) Legal aspects of contracts.