

CENTRAL PUBLIC WORK DEPARTMENT

DEPARTMENTAL EXAMS FOR AEE'S

Civil Engineering Paper – I  
(Without Books)

Time: 3 Hours

Maximum Marks: 100

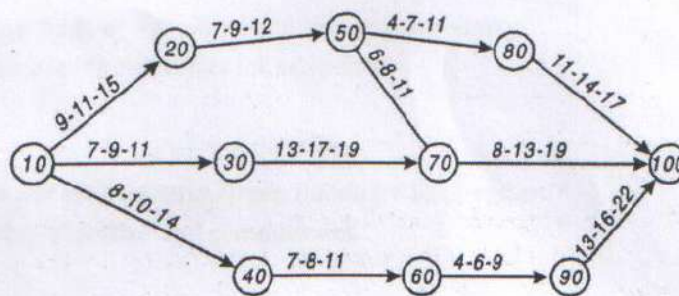
Attempt all questions

1. (a) Write short note on WBPMS.

(5)

(b) In a network shown in following fig. for each activity the optimistic, the most likely and pessimistic time estimates are given. If 10 and 100 are the start and the end events respectively, find the critical path through the network.

(10)



2. Write specifications for:

(5+5+5+5)

- (a) Joining old brick work with new brick work.
- (b) Joints in brick work.
- (c) Tack Coat of Hot Straight Run Bitumen.
- (d) Preparation of Sub-Grade.

3. Write short notes on the following:

(5+5)

- (a) Test for Organic impurities in fine aggregates. Mention criteria for conformity also.
- (b) Test for water absorption for Bricks. Mention criteria for conformity also.

4. What are general requirements for Drainage System for Buildings?

(5)

5. What is the maintenance cost index? How it is calculated? Mention weightage of material and labour component in service cost index. (5)
6. State the component involved for analysis of rates for following items: (5+5+5+5)
- (i) Earth Work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineering-in-charge.
  - (ii) Cement mortar 1:4 (1 Cement : 4 Coarse Sand).
  - (iii) Brick work with FPS Bricks of class designation 75 in foundation and plinth in Cement mortar 1:6 (1 Cement : 6 Coarse Sand).
  - (iv) Ruled pointing on Brick work with Cement mortar 1:3 (1 Cement : 3 Fine Sand).
7. What are various methods of valuation of a buildings/property? Describe in brief mentioning suitability for adoption? (5)
8. What are criteria as per TERI – GRIHA Green Building Rating system? Define briefly meeting objective and commitment. (10)
9. Describe roof top Rainwater Harvesting mentioning National Building code provisions. What care shall be taken in Rainwater Harvesting? (5)
10. What are the main stages to be considered to deal with construction project, describe briefly. (5)