

CENTRAL PUBLIC WORKS DEPARTMENT
DEPARTMENTAL EXAMINATION FOR AEE (CIVIL)

OCTOBER – 2020

Civil Engineering Paper-I

(Without Books)

Time: 3 hours

Maximum Marks: 100

Attempt any 10 questions

1. What are differences between MS Projects and Primavera network management tools? Elaborate the kind of projects where these tools can be used in the projects?
(10)
2. What is full form of WBPMS and PMS tools being used in CPWD for monitoring of projects? What are the steps for registering an original building project with sanctioned amount of Rs. 100 cr in CPWD in PMS?
(10)
3. Elaborate necessity of specifications. Describe the elements of specification with example of any item.
(10)
4. State about the components involved in Analysis of Rates of any item with example.
(10)
5. (i) What is Plinth Area Rates (PAR) and its applicability? (ii) What is latest PAR issued in CPWD? (iii) How many time and when Cost Index is supposed to be issued in a year?
(10)
6. A detailed estimate is to be prepared based on DSR-2018 enhanced by latest Cost Index for Technical Sanction by an Authority in CPWD at Agartala in the month of Oct 2019. PAR-2012 Cost Index of Agartala as on 01.04.2019 is 150 and PAR-2019 Cost Index of Agartala as on 01.10.2019 is 25. The cost of DSR-2018 based items is Rs. 10,01,20,300/-. Work out the Technical Sanction amount.
(10)
7. Prepare a concept plan and design a scheme for artificial recharge to ground water for a proposed building plot with following parameters:
Catchments area of (i) Roof Top area: 3922 Sqm (ii) Pavement area: 3313 Sqm
(iii) Normal monsoon rainfall: 300 mm (iv) Maximum hourly rainfall intensity: 20 mm/hour
(10)

8. What are the piping system adopted in a building for discharge of waste water as per NBC? Explain with sketches and applicability of each system. (10)
9. What are the type of pavements in road constructions? Explain suitability and applicability of each type of pavements with guiding design parameters. (10)
10. Name any 10 new/emerging technologies being adopted in the construction in CPWD. (10)
11. How many groups of green building rating is accorded by CPWD green rating system? Name groups with qualifying marks. Name criteria adopted for marking in normal building project in CPWD rating system. (10)
12. Elaborate the various methods adopted for valuation of old property with building in it on the current date of valuation. Explain the circumstances of applicability of each method of valuation. (10)