GATE 2021 CE-2 Question Paper & Unofficial Answer Key - CollegeDekho

The memory-based question paper and answer key PDF for GATE 2021 CE-2 has been updated here -

Question	Question
A proposed cantilever beam XY with an internal hinge at the middle is carrying a uniformly distributed load of 10K/W as shown in the figure. Find Vertical reaction at X (in KN integer) in Answer - 30	Solid circular torsional member OPQ is subjected to torsional moment as shown in the figure. The yield stress strength of the in 160 MPa. Find absolute maximum shear stress in the member (in MPa round of to one decimal point)
The hyetograph in the figure corresponds to a rainfall event of 3 cm. If rainfall event has produced a direct small of 1.6 cm, the index (in mm/hr round all to 1 direct place)	A 12 hr VH (1 cm rainfall excess) o catchment is of a triangular shape with a base width of inner of a peak discharge of 23m3/sec. The area of catchhen (km2) - Answer 596
The relationship between traffic speed and density is described using a negatively sloped straight line. If V_f is free flow speed then the speed which max flow will occur - Answer $V_f/2$	In an aggregate mix, the percentage weight of coarse aggregate, mineral fillers are 55%, 40%, 5% respectively. Bulk specific gravities of coarse aggregate, fine aggregate and miner filler are 2.55, 2.65 and 2.70. The theoretical specific gravity of aggregate mix isround off to two decimal places) - ANswer 2.04
Determine the critical depth for the rectangle channel section if the width is 6m and discharge is 20m/3sec - Answer 1.04m	The most probable value of the angle Q - Answer 36 Degrees
For a traverse latitudinal and departure are calculated and it is found that the sum latitude = +2.1m sum of departure = -2.8m length & bearing of closing error one respectively - Answer - 3.5m	2 degrees curve (H speed broad gauge) maximum speed sanctioned 100 km/h equilibrium speed = 80 kmPh. Considering dynamic gauge BG rail 1750 mm, the degree of curve defined as angle substantial at its centre by 30.5 arc, the cant deficiency in mm Answer - 56MM

Questions & Answers Courtesy - GradeUp