

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2025

M.Tech-I Semester (CE: Construction Management)

COURSE CODE (CREDITS): 10M11CE112

MAX. MARKS: 25

COURSE NAME: ESTIMATING AND COSTING

COURSE INSTRUCTORS: Dr. KAUSHAL KUMAR

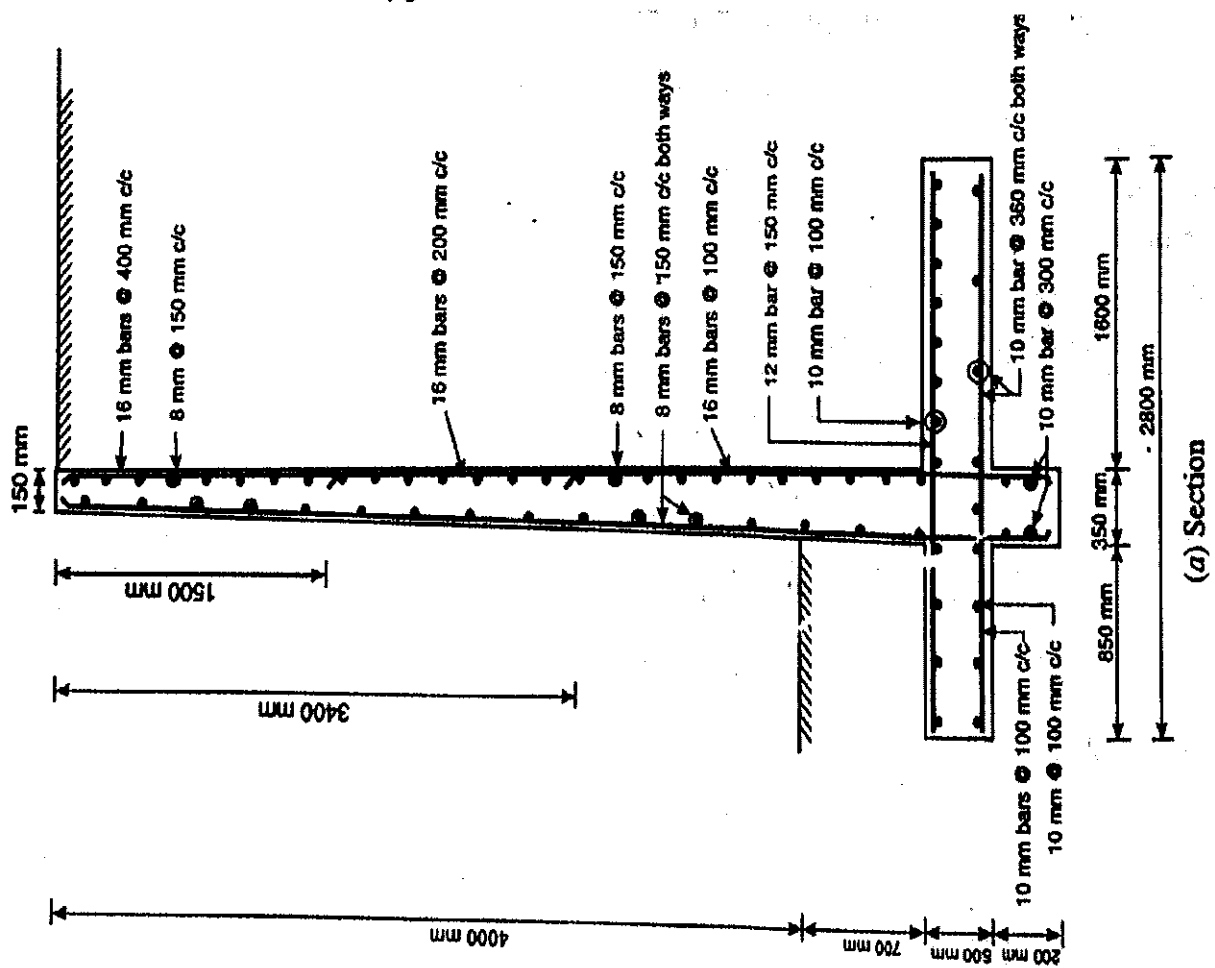
MAX. TIME: 1 Hour 30 Min

Note: (a) All questions are compulsory.

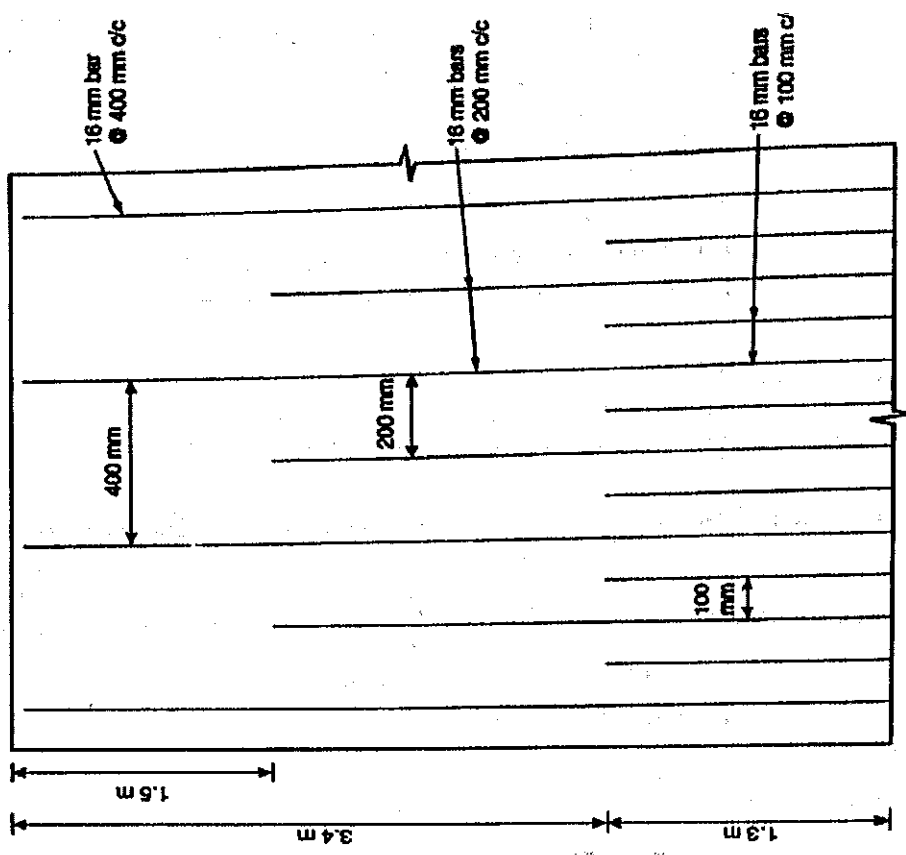
(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems.

(c) Calculator is allowed

Q. No	Question	C O	Marks																																																								
Q1	Prepare a detailed estimate for earthwork for a portion of a road from following data: <table><tr><td>Dis t. in m</td><td>0</td><td>10</td><td>200</td><td>30</td><td>40</td><td>500</td><td>60</td><td>700</td><td>80</td><td>90</td><td>100</td><td>110</td><td>12</td></tr><tr><td></td><td></td><td>0</td><td></td><td>0</td><td>0</td><td></td><td>0</td><td></td><td>0</td><td>0</td><td>0</td><td>0</td><td>00</td></tr><tr><td>R.L . of ground</td><td>11</td><td>11.</td><td>115</td><td>11</td><td>11</td><td>116</td><td>11</td><td>118</td><td>11</td><td>11</td><td>117</td><td>117</td><td>11</td></tr><tr><td></td><td>4.5</td><td>75</td><td>.25</td><td>5.2</td><td>6.1</td><td>.85</td><td>8.0</td><td>.25</td><td>8.1</td><td>7.8</td><td>.75</td><td>.90</td><td>9.5</td></tr></table> R.L. of formation 115 at 0 m, Upward gradient 1 in 200 upto 600 m after that Downward gradient of 1 in 400. Formation width of the road is 10 metre. Side slope 2:1 in banking and 3:2 in cutting.	Dis t. in m	0	10	200	30	40	500	60	700	80	90	100	110	12			0		0	0		0		0	0	0	0	00	R.L . of ground	11	11.	115	11	11	116	11	118	11	11	117	117	11		4.5	75	.25	5.2	6.1	.85	8.0	.25	8.1	7.8	.75	.90	9.5	3	9
Dis t. in m	0	10	200	30	40	500	60	700	80	90	100	110	12																																														
		0		0	0		0		0	0	0	0	00																																														
R.L . of ground	11	11.	115	11	11	116	11	118	11	11	117	117	11																																														
	4.5	75	.25	5.2	6.1	.85	8.0	.25	8.1	7.8	.75	.90	9.5																																														
Q2	Prepare a detailed estimate of a RCC Retaining wall of 30 meter in length whose cross section is given in the figure (back of paper).	4	9																																																								
Q3	Explain the fundamental principle of the Centre Line Method for estimating the quantity of masonry work in a building. Discuss one primary advantage and one specific limitation of this method.	1	3																																																								
Q4	A Bar Bending Schedule (BBS) is a critical document in the Reinforced Cement Concrete (RCC) construction process. Elaborate on any three key purposes of preparing a BBS and explain its importance for any two stakeholders involved in the project.	2	3																																																								



(a) Section



(b) L-Section of Stem