NAVRACHANA UNIVERSITY
a UGC recognized University

School: School of Engineering and Technology
Program/s: B.Tech Civil Engineering
Year: 4th **Semester:** 7th
Examination: End Semester Examination
Examination year: November - 2023

Course Code: CE415 **Course Name:** Advanced Design of Steel Structures
Date: 23/11/2023
Time: 10:00 a.m. to 12:00 p.m.

Total Marks: 40
Total Pages: 01

Instructions:

→ *Write each answer on a new page.*
→ *Use of a calculator is permitted*
→ *Assume suitable data if required, and mention the same*

Q. No.	Details	Marks	COs*	BTL*
Q.1	Calculate collapse moment for following beams	20	CO2,3,4	BT3,BT5
Q.2	A welded plate girder of 30 m span is laterally supported throughout. It has to support UDL of 200 kN/m exclusive of self-weight. Design the section. Consider plate girder without end stiffener. Assume additional data if required. Perform all checks.	10	CO1,5	BT4,BT5
Q.3	Answer the following *(Any Two)*	10	CO2,4	BT1,BT6
	1. How economical geometry of the truss can be achieved?			
	2. Compare composite construction with steel construction.			
	3. Discuss merits of plastic analysis approach in steel design.			

************End of Question Paper************