



Dept. of Civil Eng.
Faculty of Engineering
Assiut University
2nd Semester – Evaluation
2019/2020 - June 2020

Const. Eng. & P. M. Program
R. C. 2 (CVE2117)
2nd level
Course Evaluation
Marks: 100



	اسم الطالب
	الرقم الأكاديمي
خرسانة مسلحة-2	اسم المقرر
الثاني	المستوى
	رقم المشروع

التوقيع	الدرجة	رقم السؤال
		السؤال الأول
		السؤال الثاني
		السؤال الثالث
		السؤال الرابع
		السؤال الخامس
		السؤال السادس
		المجموع

توقيع لجنة الامتحان

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+ اللجنة

It is required to make a complete design for an intermediate two hinged frame shown in the following Figures. The design data are given in the following table:

Project No.	x (m)	y (m)	Loads kN/m ²		Materials N/mm ²		
			cover	L.L	F _{cu}	F _y	F _{yst}
1	3.5	5.5	2.5	2.0	25	360	240
2	4.0	5.0	2.0	2.5	30	360	240
3	4.5	4.0	1.5	1.5	35	400	240

Each student can choose one of the above projects.

Required for each project:

- 1) Calculate the loads on the beams and frames. (14 points)
- 2) Draw B.M.D., N.F.D and S.F.D. for the calculated loads. (9 points)
- 3) Design the critical sections of the frame against ultimate bending moments. (14 points)
- 4) Design the critical sections of the frame against ultimate shear forces. (13 points)
- 5) Design the hinge support. (10 points)
- 6) Draw with suitable scale sectional elevation and cross-section for the frame showing complete reinforcement details. (40 points)



