

08

OCTOBER

SATURDAY

281-084 Week 41

			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		
M	T	W	T	F	S	S

20  
11

SEP

### Assignment-03.

1.) Design a cotter joint, made of 30C8 steel, to support a load of 50 kN which is subjected to slow reversals of direction.

2.) A mild steel shaft has to transmit 70 kW at 240 rpm. The allowable shear stress in the shaft material is limited to 45 MPa and the angle of twist is not to exceed  $1^\circ$  in a length of 20 times the shaft diameter. Determine the shaft diameter and design a cast iron flange coupling of protected type for the shaft. The shear stress in the coupling bolts is to be limited to 30 MPa.