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| **Subject Name:** Machine Design | **Subject Code: NME-501** | **Max Marks:** 10 |

1. An overhang crank with pin and shaft is shown in Fig. a tangential loadof 15 kN acts on the crank pin. Determine the maximum principal stress and the maximum shearstress at the centre of the crankshaft bearing.



1. A mild steel bracket as shown in Fig, is subjected to a pull of 6000 Nacting at 45° to its horizontal axis. The bracket has a rectangular section whose depth is twice thethickness. Find the cross-sectional dimensions of the bracket, if the permissible stress in the materialof the bracket is limited to 60 MPa.

