

# GEOMETRICAL AND MECHANICAL DRAWING (869)

**This subject may not be taken with Geometrical and Building Drawing.**

Candidates will be required to reach a minimum standard in the subject as a whole. The use of drawing board, tee-square and set-square will be required. (Candidates may, if they wish, use a

drawing board fitted with a parallel motion straight edge. The use of drafting machines will be permitted). A2 size paper will be used. The recommendation of IS:696-1972 Indian Standard, Code of Practice for General Engineering Drawing should be followed.

## CLASS XII

*There will be one paper of 3 hours duration of 100 marks.*

### **Drawing (Engineering)**

Candidates will be required to answer **all** questions.

The preparation of working drawings and assemblies from dimensioned sketches based on the following:

- (a) fastening (nuts, bolts, studs, keys, cotters, pins, locking devices);
- (b) rigid and flexible joints;
- (c) screw threads; their projection and the proportions of standard types;
- (d) transmission of motion and power, bearings, supports, shafts and coupling;
- (e) pressure transmission in pipes using water, oil, steam and gas;
- (f) constructional details of prime moves and simple machine tools;

(g) the use of reference points and planes in dimensioning, machining and surface texture symbols;

(h) toleranced dimensions involving the use of IS:919 or B.S. 4500 Limits and Fits for Engineering.

Candidates will be expected to follow the recommendations given in IS:696 - 1972 Indian Standard, Code of Practice for General Engineering Drawing. They should be familiar with both First and Third Angle projections.