

735/3

**S.4 TECHNICAL DRAWING
MOCK EXAMINATION 2010
3 HOURS.**

INSTRUCTIONS:

-Answer all the questions

-Accuracy and good draughtsmanship are essential

-Where dimension are not given, choose suitable specifications.

Figure 1 shows the ground plan of a residential house not drawn to scale.

SPECIFICATIONS:

Foundation:	Common strip foundation 675x225 laid 800mm below ground level.
Wall:	External and internal are 225 thick. Walls for the main house are 3300 high from floor level to underside of the wall plate. Kitchen walls are 2500 high.
Floor:	Solid floor with 25mm sand and cement screed laid over 100 thick concrete and 150 thick hard core.
Roof:	Timber structured roof gabled at garage end and hipped at bed room end and pitched at 30°. Kitchen has a lean to roof pitched at 22°. The two roofs are covered with corrugated iron sheets. 100x50 rafters. 150x50 tie beam 75x50 purlins 200x20 fascia and barge boards.
Doors:	D ₁ 2400 x2100 double swing metallic door. D ₂ 1000 x2100 framed, ledged, braced and battened D ₃ 1500 x2100 double swing metallic door. D ₄ 900 x 2100 framed, ledged, braced and battened
Windows:	W ₁ 800 x 800 metallic casement W ₂ 900 x 1200 louvered in wooden frame W ₃ 1200 x 1200 louvered in wooden frame. W ₄ 1500 x 800 Pompeii
Eaves:	Open eaves projected at 500mm.

SECTION I:

1. Draw in good proportion a free hand pictorial sketch of the house in fig I making corner S the lowest point.

SECTION II:

2. Using the given specifications and the drawing in figure I, draw to scale 1:50;
 - (a). A complete plan showing the suitable symbols for windows, doors in their correct position and sanitary fittings.
 - (b). Sectional elevation through cutting plane M-M to show all details from the ridge to the foundation. Label members that make up the floor and roof.
3.
 - (a). Using scale 1:10 draw the vertical section through door 4 including the door frame.
 - (b). At the bottom right hand corner draw a title block in it print your name, index number, paper code, title scale and date.