P720/2
GEOMETRICAL AND
BUILDING DRAWING
Paper 2
Jul/Aug 2019
3 Hours

MUKONO EXAMINATION COUNCIL
Uganda Advance Certificate of Education
GEOMETRICAL AND BUILDING DRAWING

3HOURS

INSTRUCTIONS TO STUDENTS:

- *This question paper consists of five questions,*
- *Attempt all questions,*
- *A drawing paper size A2 is provided, use both sides if necessary*
- *Where dimensions are not provided use your own discretion to determine missing dimensions*
- *Figures in this question paper are not drawn to scale*
- *Interpret properly the specifications and figures provided before you attempt any question*

Figure 1 shows a line diagram of a **residential building (**not drawn to scale) having three sections A, B and C as shown in the figure.

SPECIFICATION

Foundation:

225mm plinth wll on 625mm x 225mm concrete strip, 1000mm below ground level.

Walls:

All walls are 225mm thick in header bond at a height of 3000mm from ground finish to first floor and from first floor finish to ceiling.

Floor:

Ground floor tiled floor finish on 100mm oversite concrete on 150mm hard core on compacted.

Upper floor is of tiled floor finish on 300mm reinforced concrete floor.

Stairs:

Reinforced concrete half turn stairs with 240mm going and 190mm rise, 42° pitch angle and a landing 1000mm wide and 150mm thick.

Doors:

All external doors are with permanent vents on

D1 - Double leaf metallic casement door

1500mm x 2400mm

D2 - 900mm x 2400mm flush wooden door

D3 - 900mm x 2400mm steel panel door

Windows

All windows are casement metallic with permanent vents on

W1 - 1500mm X 1500mm

W2 - 1200mm x 1500mm

W3 - 1200mm x 900mm pempei bricks with wire mesh.

W4 - 600mm x 900mm

WS - 1200MM X 900mm

Roof

Part A of the building is storied and has a gabled roof covered with corrugated iron sheets pitched at 30°.

Part B is spaned with a reinforced concrete slab of 300mm.

Part C has a hipped roof covered with corrugated iron sheets and pitch angle 30°.

The roof deck is of 100mm x 50mm Rafters, struts and wall plates, 75mm x 50mm purlins,

150mm x 50mm tie beam and 200mm x 20mm Fascia board.

Using the given specification and the drawing in figure 1 to answer the following question.

1. Draw a proportional pictorial freehand sketch map of the building with corner K in the fore ground. ***(30 marks)***

2. To a scale of 1:100, draw the ground floor plan, include symbols for sanitary fittings, windows and doors. ***(25 marks)***

3. Draw the section to a scale 1:100mm along cutting plane Y – Y ***(25 marks)***

4. To a scale of 1:30 draw the section along cutting plane X – X and label all the parts. ***(15 marks)***

5. At the bottom right hand corner of your drawing paper draw a title block and include in it your name, personal number, title, scale and date. ***(05 marks)***

End –

End -