

**TIME: 3 HOURS**  
**MARKS: 100**

### INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Read ALL the questions carefully.
3. Number the answers correctly according to the numbering system used in this question paper.
4. A balanced layout must be maintained. Candidates are encouraged to plan well in order to earn marks.
5. Answer only QUESTION 1 on the attached ANSWER SHEET. ALL the other questions must be answered on A4 DRAWING PAPER. DO NOT use A3 drawing paper.
6. The question number must appear at the TOP LEFT-HAND corner of EACH page.
7. Each drawing question must be plotted on a separate sheet of DRAWING PAPER.
8. Draw a border line around each DRAWING SHEET.
9. ALL candidate information must be plotted in the title block.
10. Plot the answers on **ONE** side of the DRAWING PAPER only.
11. Candidates will be responsible, under suitable supervision, for the plotting of their OWN drawn answers.
12. Use your OWN discretion where dimensions are not given.
13. ALL the drawings must be drawn to the required scale.
14. Write neatly and legibly.



**QUESTION 1: COMPUTER ORIENTATION**

Write the answers to the following questions on the attached ANSWER SHEET. Write your EXAMINATION NUMBER in the space provided at the top of the sheet.

- 1.1 Write the words that are represented by the following acronyms:
- 1.1.1 WAP (1)
  - 1.1.2 PDA (1)
  - 1.1.3 ATM (1)
  - 1.1.4 MMS (1)
  - 1.1.5 ADSL (1)
- 1.2 Name the device that is capable of sending information along various paths through a network. (1)
- 1.3 In computer terms, we often hear about 'hard copies' and 'soft copies'. Briefly explain the difference between these **TWO** terms. (4)
- 1.4 Match the following terms with the descriptions given in the list below. Write only the term next to the question numbers (1.4.1 - 1.4.5), on the ANSWER SHEET.
- Virtual memory; bus; burn; system file; MP3
- 1.4.1 A term used to write data files to a special piece of hardware (1)
  - 1.4.2 This term refers to an audio file which has been compressed. It reduces the physical size of the audio file with little loss of sound quality (1)
  - 1.4.3 A collection of copper wires through which data is transmitted from one part of a computer to another (1)
  - 1.4.4 It uses part of the hard drive as though it were 'RAM' (1)
  - 1.4.5 A file in the system folder that allows your PC to start and run (1)

**[15]****QUESTION 2: BUILDING DRAUGHTING**

**FIGURE 1** below shows the floor plan layout of a small house to be built at a retirement village. The owners of the house thought the house being too small, requested that the house be extended by 2 metres to the west.

Wall thicknesses

External walls: Cavity 270 mm thick  
Internal walls: Single leaf 110 mm thick

Refer to the attached window schedule and insert appropriate windows as indicated on the



plan layout. Also supply suitable floor coverings to ALL the rooms.

Draw to scale 1:100 and A4-drawing paper the given view to include the extension.

The drawing must be fully dimensioned and labelled with ALL the sanitary fitments in the correct positions.

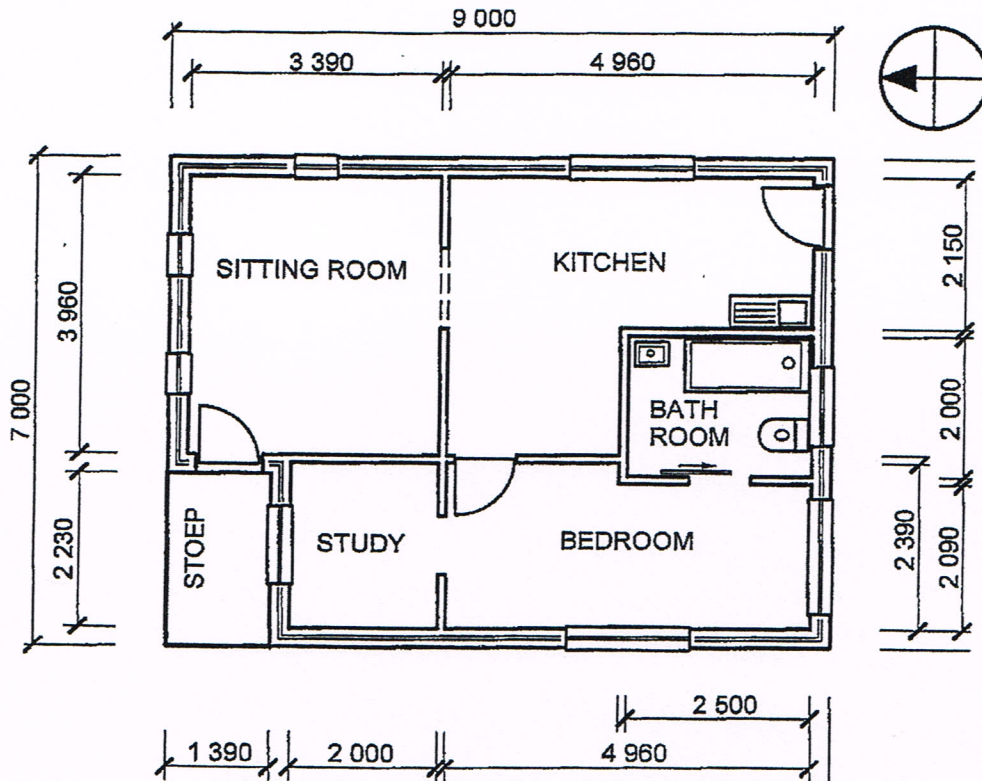


FIGURE 1

[30]

### QUESTION 3: ELECTRICAL DRAUGHTING

FIGURE 2 below, shows an electrical circuit diagram for a temperature-activated fan.

Use an A4-DRAWING SHEET and draw, in good proportion, a neat layout of the current circuit diagram. Ensure that ALL the symbols are drawn correctly and placed in the correct positions. Provide the completed drawing with ALL the labels.



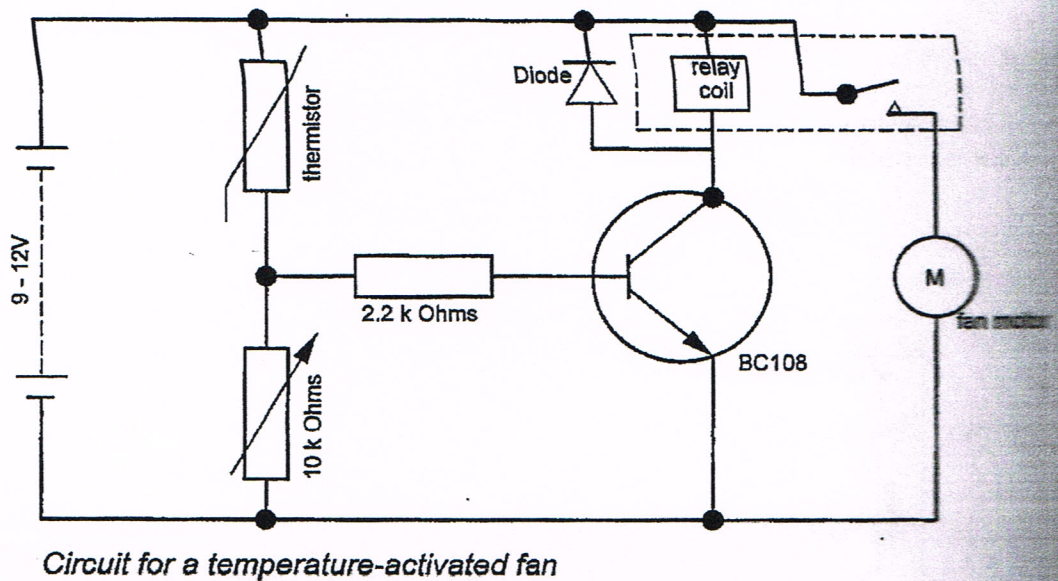


FIGURE 2

**QUESTION 4: STRUCTURAL STEEL DETAILING**

Structural steel buildings require that a draughts person detail the components of such a building to precise dimensions. This will ensure that the various parts of the structure fit accurately and precisely.

**FIGURE 3, DIAGRAM SHEET 1** (attached) shows the structural details of a 254 x 254 x 62,5 kg/m universal column to be used as a structural support member for a small building.

Draw to scale 1:10 and A4-drawing paper, portrait orientated, the given views as shown.

Good proportion must be maintained by using the correct scale. Insert ALL the dimension labels and headings.

**QUESTION 5: GENERAL AND MECHANICAL DRAUGHTING**

**FIGURE 4** below shows a shaped plate cover developed for a machine. Use scale 1:2 and A4-drawing paper, portrait orientated, and draw the shaped plate.

ALL dimensions are given in millimetres.

Insert ALL the dimensions and centre lines. A balanced layout must be maintained using the correct scale.



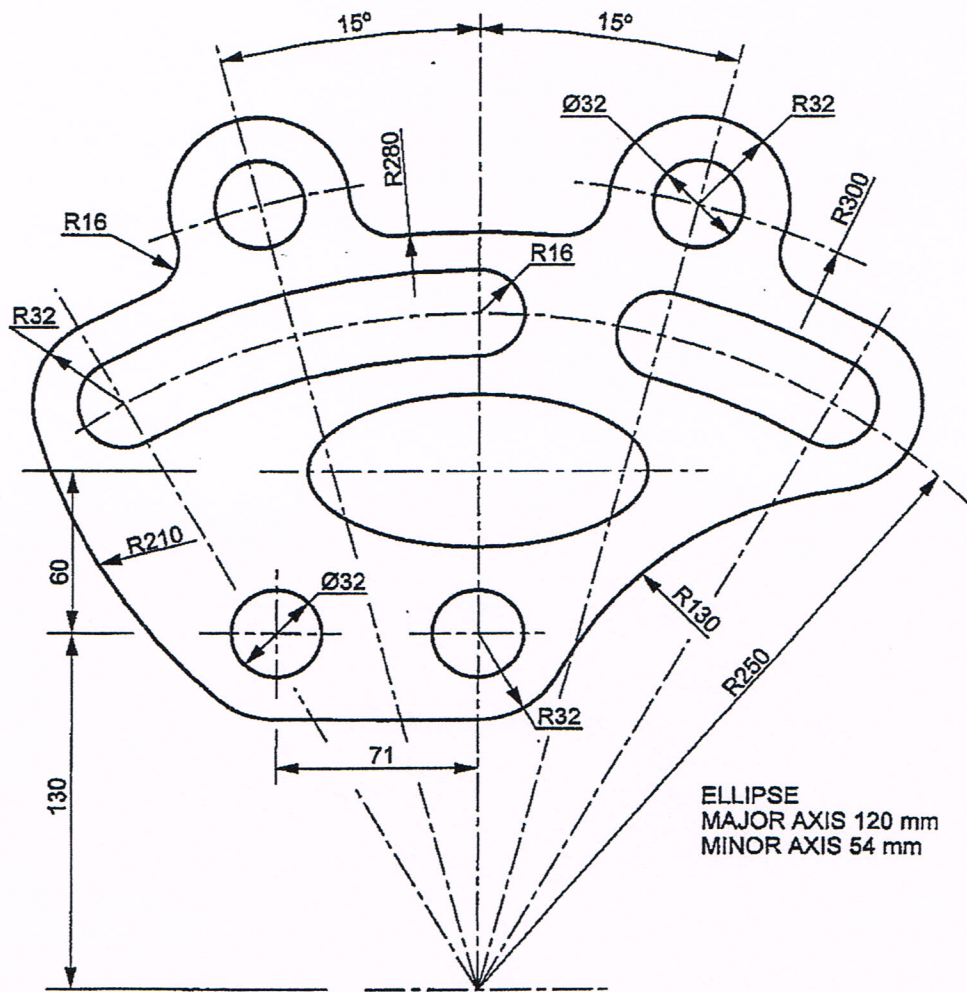


FIGURE 4

[20]

TOTAL: [100]

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## DIAGRAM SHEET 1

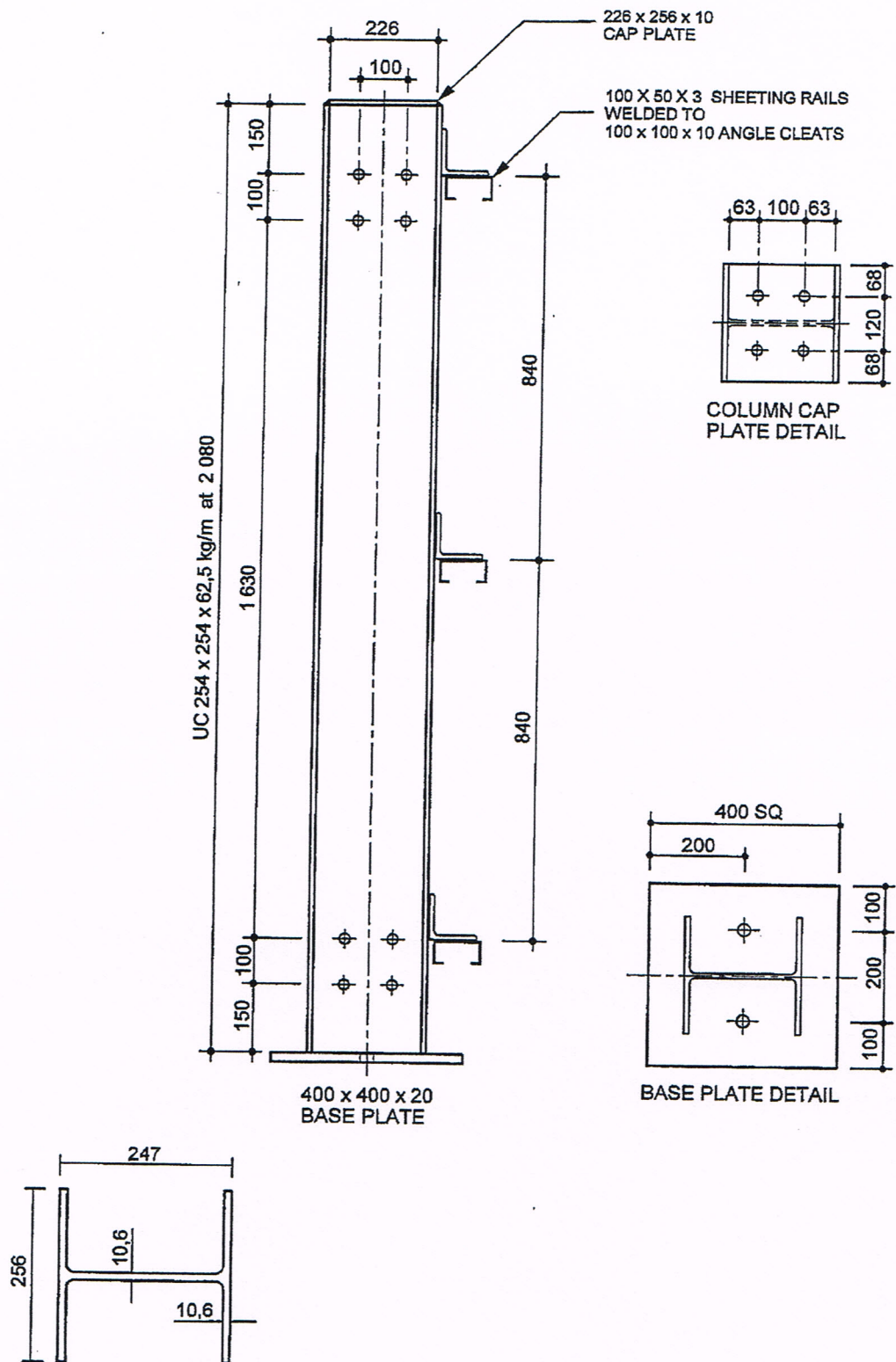



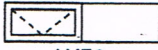
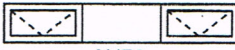
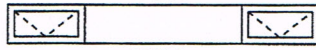

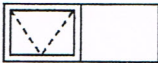
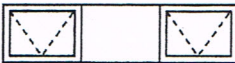
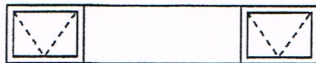
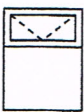
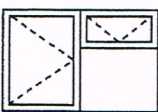
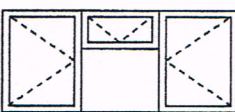
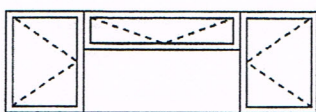

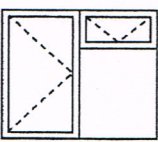
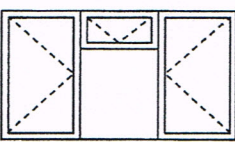
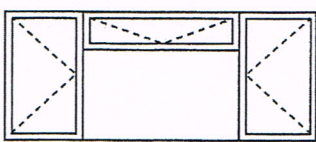
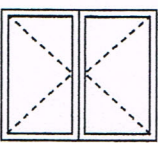
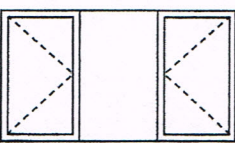

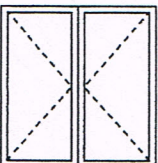
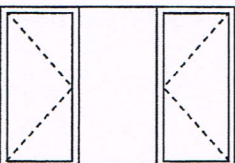
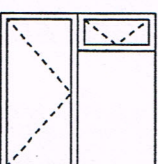
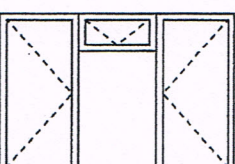
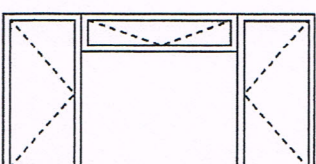
FIGURE 3



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## REFERENCE SHEET 1

## WINDOW SCHEDULE

Window catalogue				
342	 584 WE1	 1 128 WE2	 1 672 WE3	 2 216 WE4
584	 WD1	 WD2	 WD3	 WD4
887	 WC1F	 WC2F	 WC3F	 WC4F
1 187	 WB1	 WB2F	 WB3F	 WB4F
1 187		 WB22	 WB3	
1 487	 WA1	 WA22	 WA3	
1 487		 WA2F	 WA3F	 WA4F