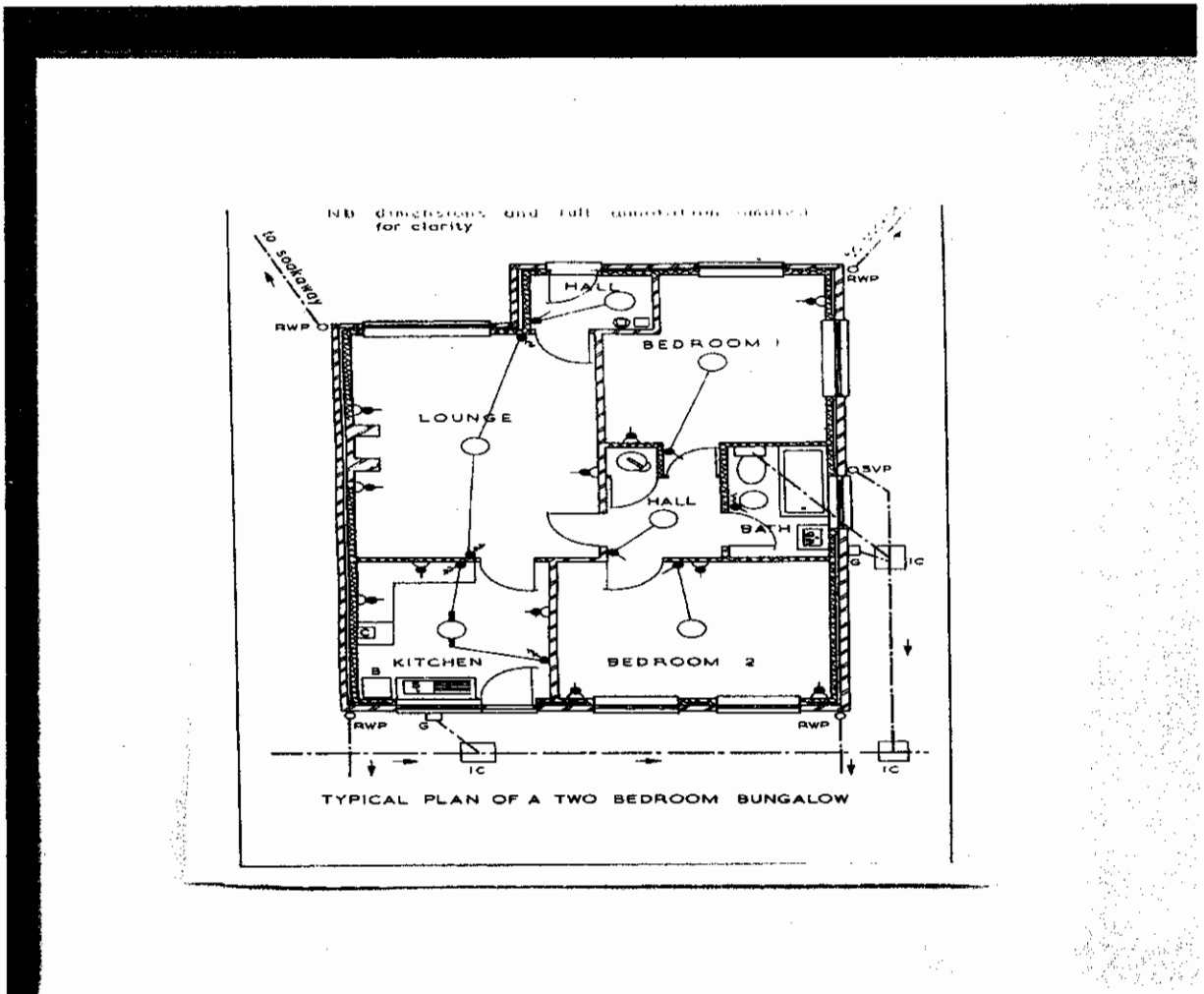




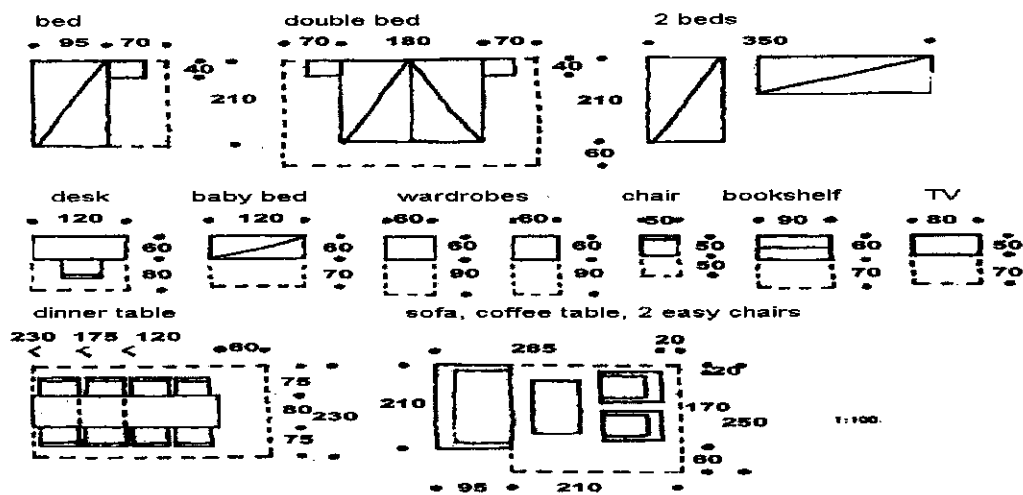
**QUESTION ONE**

- a) Give advantages for using CAD instead of traditional methods of drawing? [6]
- b) Explain the significance of the following documents in building construction:
  - i. Contracts document [4]
  - ii. Gantt Chart [4]
- c) Evaluate the following drawing and give your assessment using norms for scrutinization of construction drawings [11]



**QUESTION TWO**

- a) Write notes based on the following figure below/overleaf and state the significance thereof in building design [2]



- b) Define the following terms as applied in Project Management [5]
- i. Project
  - ii. Task
  - iii. Man Hours
  - iv. Event
  - v. Work Break Down Structure
- c) Outline possible dangers when site layout considerations are not taken seriously at a construction site [10]
- d) Describe quality management and quality costs at a construction project [8]

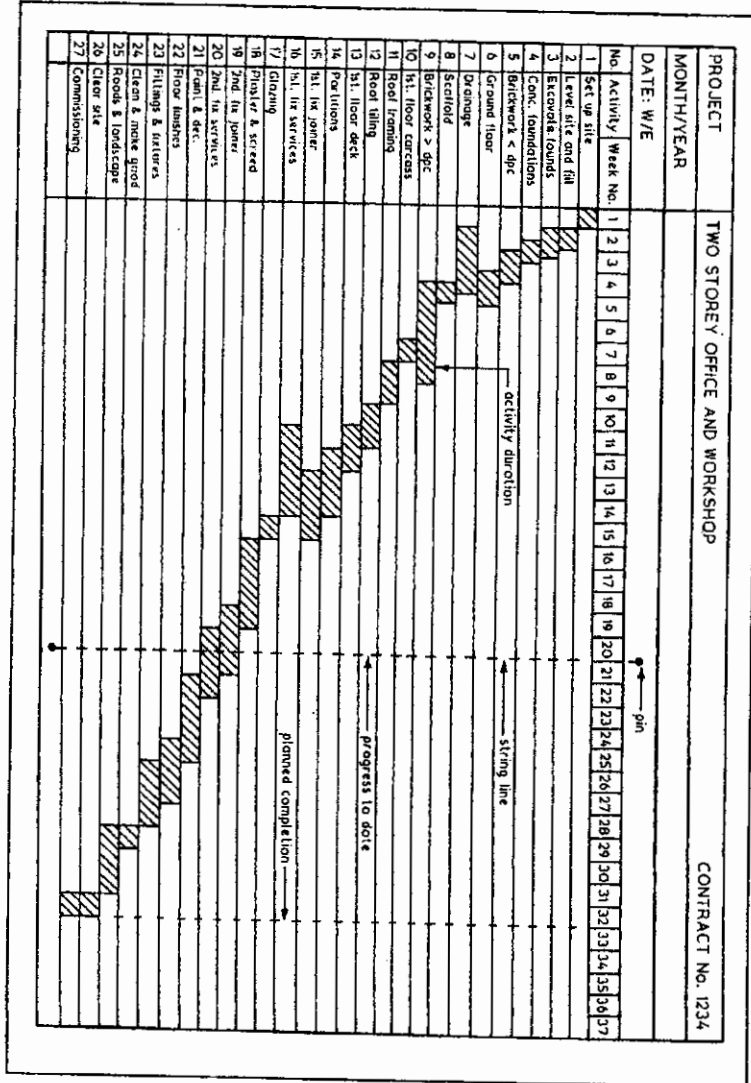
**QUESTION THREE**

- a) What are the two broad areas of concern when a person wishes to obtain formal approval to build? [4]
- b) Explain how you will go about checking angles and ordinary dimensions in a CAD project [2]
- c) Give five functions of elevations on drawings. [5]
- d) What common features need to appear on floor plans [9]
- e) Draw a sketch to illustrate the point “walls in footings are to be centered on the strip foundation” [5]

**QUESTION FOUR**

- a) This question is in reference to the attached Gantt chart (**drawing C**) outlining activities 1 to 27 to be done in 37 weeks to construct a two storey office and workshop.
  - i. Give the four types of links in a WBS [4]
  - ii. Specify the links represented by activity 1 to 16 in drawing C [8]

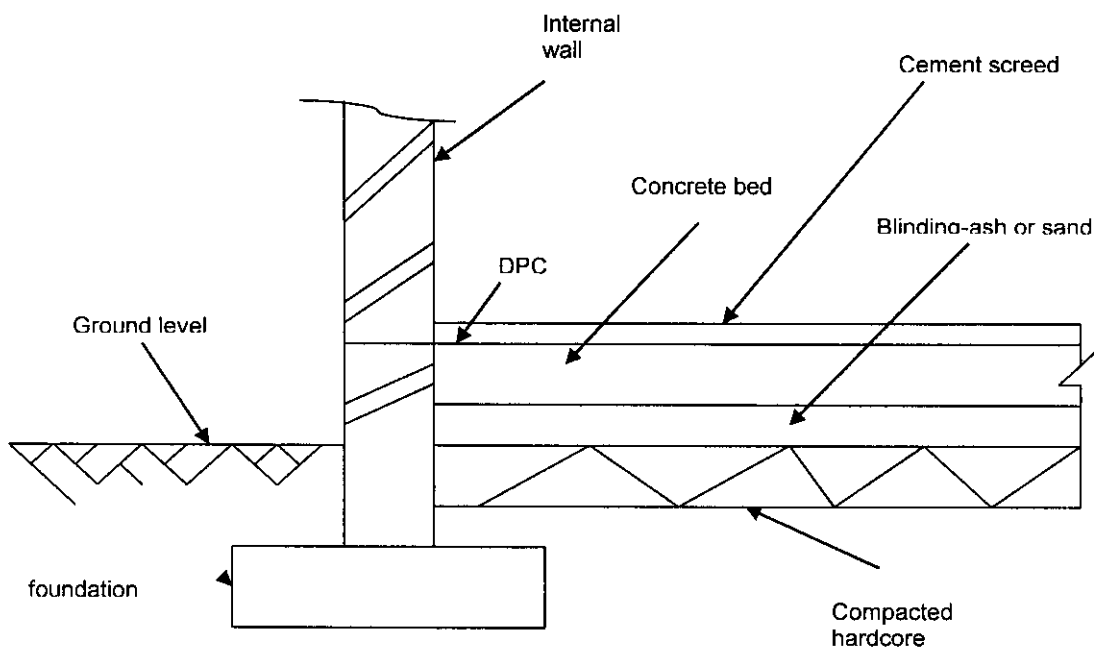
**DRAWING: C**



Given to H & A with camp (8)

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- b) List all the types of architect's drawings you know, their utility and appropriate scales thereof [6]
- c) Sketch out the following lines and line work generally used on construction drawings [1]
- i. Outlines [1]
  - ii. Hidden detail line [1]
  - iii. Drain and pipe lines [1]
  - iv. Break lines [1]
- d) Using your knowledge on how to design foundations. Calculate the width of the foundation trenches for outside walls below using dimensions as stipulated for minimum building requirements concerning sizes of foundations particularly when the concrete bed thickness is 230mm. You may wish to use the formula  $W=TW+2T$  [3]



**QUESTION FIVE**

- a) Discuss five issues which are examples of the application of control over the building process in Swaziland [10]
- b) Explain the purpose of the following CAD commands: [3]
  - i. Zoom previous
  - ii. Zoom real-time
  - iii. Zoom window
- c) Calculate the width of a strip foundation when the load bearing wall is transmitting a load of 25kN/m and the soil-bearing capacity of the subsoil is 75kN/m<sup>2</sup> [1]
- d) Concerning AutoCAD
  - i. Outline the AutoCAD opening sequence. [1]
  - ii. Complete the matrix below indicating 10 toolbars under each category in CAD [10]

<b>DRAW TOOL BARS</b>	<b>MODIFY TOOLBARS</b>
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	9
10	10