

Question 5

- (a) According to Haynes, each project has a predictable life cycle consisting of four phases. List the four phases and describe the activity levels for the four phases.
- (b) Explain what is a Gantt chart and its use in project management.

Question 6

- (a) Briefly describe the characteristics of the output of an open–collector TTL gate.
- (b) Explain how several open–collector TTL gates can be connected to perform the logical AND function.
- (c) Suppose you were to drive a BJT transistor with a TTL gate for the purpose of turning on and off an alarm siren. The current needed to drive the siren is quite large. Would you use a NPN or a PNP transistor? Give reason(s) for your choice.