**IB HL 5.8 Critical Path Analysis**

Esperanto felt that a product of such importance needed a suitable campaign to target a number of other niche market segments. A marketing agency, New World, was used to help plan and coordinate the marketing and product launch for 1 January 2011. Esperanto’s chief executive officer (CEO) agreed the following sequence of activities with New World’s marketing team:

|  |  |
| --- | --- |
| Activity | Estimated Duration (weeks) |
| A | 2 |
| B (Must follow A) | 2 |
| C (Must follow B) | 5 |
| D (Must follow B) | 7 |
| E (Must follow C) | 4 |
| F (Must follow D) | 3 |
| G (Must follow E and F) | 3 |
| H (Must follow G) | 2 |
| I (Must follow H) | 5 |

If early sales of UniTran were disappointing, New World was keen to make a quick adjustment to the marketing mix. Given the initial feedback on the UniTran, New World’s perception was that the product required a very short channel of distribution. Esperanto felt the opposite. It was confident that the UniTran had the potential to become a global product and would require much longer channels.

Questions

(c) (i) On the lined paper provided for your answer, construct a fully labelled network diagram to represent the sequence of activities in the table. Show the earliest starting time (EST) and the latest finishing time (LFT) for each activity and the critical path. (8 Marks)

(ii) Calculate the total float on the network diagram and comment on its implications for New World (show all your working). (3 Marks)

(iii) Briefly outline one benefit to New World from constructing the network diagram. (2 Marks)



