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**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2021/2022**

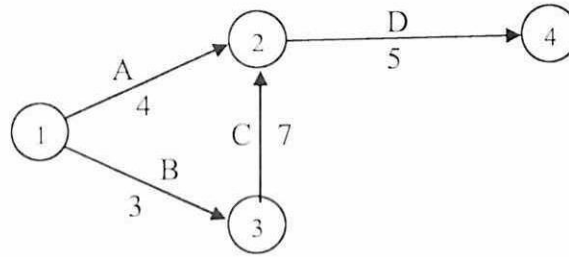
COURSE NAME : PROJECT MANAGEMENT  
COURSE CODE : BWA30102  
PROGRAMME CODE : BWA  
EXAMINATION DATE : JANUARY/ FEBRUARY 2022  
DURATION : 2 HOURS  
INSTRUCTION : 1. ANSWER ALL QUESTIONS.  
2. THIS FINAL EXAMINATION IS AN **ONLINE** ASSESSMENT AND CONDUCTED VIA **OPEN BOOK**.

**TERBUKA**

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

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**Q1** Consider the network of a project in **Figure Q1**.



**Figure Q1:** Network of a project

(a) Determine the first activity to be crashed by the following priority rules:

- (i) Shortest task first.
- (ii) Minimum slack first.
- (iii) Most critical followers.
- (iv) Most successors.

(12 marks)

(b) Using the network in **Figure Q1** and the information from **Table Q1**,

- (i) find the crash cost (RM) per day.
- (ii) Decide which activities should be crashed to meet a project deadline of 13 days at minimum cost. Assume partial crashing is allowed.

**Table Q1:** Normal and crashed times

Activity	Crash time (days)	Crashed cost (total)	Normal time (days)	Normal cost
A	3	500	4	300
B	1	325	3	250
C	4	550	7	400
D	3	250	5	150

(13 marks)

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Q2 Figure Q2 shows the network of a project.

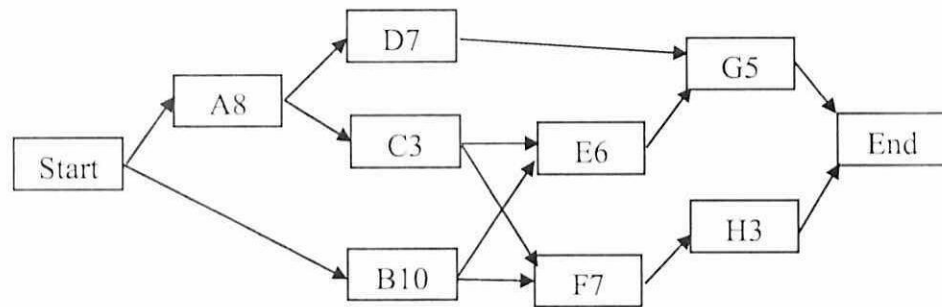


Figure Q2: Network of the project

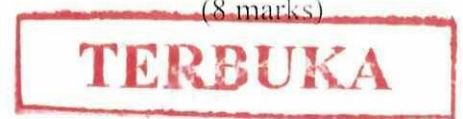
- (a) Determine the critical path for the network. (13 marks)
- (b) Calculate the distance of the critical path to complete this project. (2 marks)
- (c) Decide whether the activity *B* can be delayed without delaying the completion of the project. (2 marks)
- (d) The estimated activity times for the network of the project in Figure Q2 are given in Table Q2.

Table Q2: Estimated activity times

Activity	Optimistic time estimate, <i>a</i>	Most likely time estimate, <i>m</i>	Pessimistic time estimate, <i>b</i>
A	6.5	7.5	14.5
B	8.5	10.5	12.5
C	2.5	3.5	4.5
D	6.5	7.5	8.5
E	5.5	5.5	9.5
F	5.5	7.5	9.5
G	4.5	6.5	8.5
H	2.5	3.5	3.5

Calculate the critical path probability that the project will be completed within 21 days.

(8 marks)



**Q3** MadTech Ltd. is planning to move its office from Johor Bahru to Kuala Lumpur for increased productivity and efficiency. You have been appointed as the project manager of the relocation. You are required to write a report to be presented to the Board of Directors. The report should include, but not limited to

- a) Purpose;
- b) Objectives;
- c) Overview;
- d) Project Scope;
- e) Schedules;
- f) Human resources;
- g) Constraints;
- h) Evaluation Methods.

(50 marks)

**- END OF QUESTIONS-**

