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Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2019/2020**

COURSE NAME : CONSTRUCTION PROJECT  
MANAGEMENT

COURSE CODE : BPD 34803 / BPD 23603

PROGRAMME CODE : BPC

EXAMINATION DATE : DECEMBER 2019 / JANUARY 2020

DURATION : 3 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

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**Q1** Project planning is the process of identifying all activities necessary to complete the project successfully. This process is also known as breakdown of project into work items (activities), which define and describe activities to be performed.

(a) State the objective of construction planning. (5 marks)

(b) Sketch the life cycle of construction plan. (5 marks)

(c) Prepare the form of format of construction planning tools as follows:

(i) Work Breakdown Structure (WBS) (5 marks)

(ii) Responsibility Assignment Matrix (RAM) (5 marks)

**Q2** Site development activities may take place during planning and design phases which cover before completion of construction contract documents. One of the main activity is constructing access roads.

Explain **FIVE (5)** others main activities of site development. (15 marks)

**Q3** Your firm has just been awarded the contract to construct a shopping complex projects.

Outline **FIVE (5)** materials management plan to ensure that the necessary equipment and materials arrive on time at the field site to support the construction activities.

(15 marks)

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**Q4** Table Q4 shows Precedence Diagram for housing project activities.

**Table Q4: Precedence Diagram for Housing Project Activities.**

Activity	Duration (day)	Predecessors
Mobilize	3	-
Procure Forms	5	Mobilize
Layout Exc. 1	4	Moblize
Forms Concrete 1	3	Procure Forms, Layout Exc. 1
Layout Exc. 2	4	Layout Exc. 1
Layout Exc. 3	4	Layout Exc. 2
Forms Concrete 2	3	Forms Concrete 1, Layout Exc. 2
Set Base Plates 1	1	Forms Concrete 1
Set Base Plates 2	1	Forms Concrete 2, Set Base Plates 1
Forms Concrete 3	3	Forms Concrete 2, Layout Exc. 3
Set Base Plates 3	1	Forms Concrete 3, Set Base Plates 2

- (a) Calculate total duration to complete this housing project. (15 marks)
- (b) Define critical path. (2 marks)
- (c) State critical path based on **Q4(a)**. (3 marks)

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**Q5** Project cost management is a process required to ensure that the project is completed within an approved budget. There are a lot of financial tools can be used by Construction Manager to evaluate and estimate the project cost performance.

- (a) Explain top-down and bottom-up estimating methods. (5 marks)
- (b) Explain **TWO (2)** advantages and disadvantages for each method. (10 marks)
- (c) Illustrate the following costs in S curve:
  - (i) Total Budget Cost (TBC) (5 marks)
  - (ii) Cumulative Budget Cost (CBC) (5 marks)
  - (iii) Total Actual Cost of a project (TAC) (5 marks)

- END OF QUESTIONS -

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