



UTHM

Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION SEMESTER II SESSION 2017/2018

COURSE NAME : CONSTRUCTION EQUIPMENT
COURSE CODE : BPD 21602
PROGRAMME CODE : BPC
EXAMINATION DATE : JUNE / JULY 2018
DURATION : 2 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES



Q1 Discuss the impact on the proper use of the appropriate equipment contributes to the following.

- (i) Economy
- (ii) Quality
- (iii) Safety
- (iv) Speedy

(20 marks)

Q2 (a) Differentiate types of mixers used in concreting work of small and large projects.

(10 marks)

(b) A conveyor system is a common piece of mechanical handling equipment that moves materials from one location to another.

Differentiate the following types of conveyors, with the aid of sketches.

- (i) Wheel Conveyor
- (ii) Belt Conveyor
- (iii) Truck Conveyor

(15 marks)

(c) Explain **TWO (2)** functions of Screw Conveyor and Pneumatic Conveyor.

(5 marks)



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- Q3 (a)** In 2013, a contractor company bought an excavator with a price of RM300,000. As in 2018, the company used the excavator efficiently and maintained it well. Within the period, there were several costs involved to maintain the excavator, as stated in **Table Q3**.

Table Q3 : List of cost related for construction equipment

Item	Cost (RM)
Annual insurance	3,500
Annual road tax	350
Monthly parking fee	400
Monthly fuel	1,500
Cost of tyre (change every year)	2,000
Monthly maintenance service	400

- (i) Calculate the company’s profit, assuming the depreciation rate of 7% per year, if the company decide to sell the excavator in 2018, (5 marks)
 - (ii) Calculate the total cost for the excavator to operate efficiently until 2018. (10 marks)
- (b)** Analyse **THREE (3)** suitable cranes option to be selected, if the company decided to invest and buy cranes for their next project. (15 marks)
- Q4** Scraper is a large piece of equipment which is used in mining, construction, agriculture and other earthmoving activities.
- (a) Explain the function of **THREE (3)** basic operating parts of a scraper. (6 marks)
 - (b) Analyse **FOUR (4)** steps of operation of the equipment. (14 marks)

- END OF QUESTIONS -



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