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University Examinations 2013/2014

SECOND YEAR, SECOND SEMESTER EXAMINATION FOR DIPLOMA IN CIVIL
ENGINEERING

ECV 0233: PROJECT MANAGEMENT – COST ESTIMATION

DATE: APRIL 2014

TIME: 1 ½ HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

QUESTION ONE – (30 MARKS)

- (a) Outline three items required in order to take out quantities accurately. (1 ½ Marks)
- (b) State the situations when an architect may be forced to issue a variation order during construction. (2 Marks)
- (c) Briefly explain the use of the following in preparation of Bill of Quantities;
 - (i) Prime cost sums
 - (ii) Provisional sums (2 Marks)
- (d) State any three advantages of a Bill of Quantity to the client. (1 ½ Marks)
- (e) Outline four stages in preparation of a Bill of Quantity. (2 Marks)
- (f) Explain the term cost-benefit analysis as applied in project management. (2 Marks)
- (g) State any four items that could be considered in a preliminary section when preparing a Bill Quantities. (2 Marks)
- (h) Explain why specifications are important in design and construction process. (3 Marks)
- (i) State four element that influence cost in estimating process in construction project. (2 Marks)
- (j) Explain the importance of a construction schedule during construction. (3 Marks)
- (k) What are the advantages and disadvantages of a lump-sum contract? (4 Marks)
- (l) Briefly explain the advantages and disadvantages of open tendering. (5 Marks)

QUESTION TWO – (15 MARKS)

- (a) Briefly describe the following types of building and civil engineering contract stating one merit and one demerit for each.
- (i) Management contract
 - (ii) 'cost plus' fee contract (7 Marks)
- (b) Briefly explain the following contracts documents stating their importance;
- (i) Bill of quantities
 - (ii) Specifications
 - (iii) Drawings
 - (iv) Insurances (8 Marks)

QUESTION THREE – (15 MARKS)

- (a) Briefly explain any four essential elements in a contract. (4 Marks)
- (b) Briefly explain the following techniques of estimating process:
- (i) Cubic method
 - (ii) Storey enclosure method. (5 Marks)
- (c) State and explain three forms of tendering. (6 Marks)

QUESTION FOUR – (15 MARKS)

- (a) Differentiate between;
- (i) An estimate and a tender
 - (ii) A nominated sub-contractor and a domestic sub-contractor. (4 Marks)
- (b) State the advantages and disadvantages of an 'all-in' contract. (4 Mark)
- (c) Briefly explain the best method of approximate estimating to be used in estimation of a classroom. (7 Marks)