



THE COUNCIL OF COMMUNITY COLLEGES OF JAMAICA
ASSOCIATE OF SCIENCE EXAMINATION
SEMESTER I – 2017 DECEMBER

PROGRAMME: ARCHITECTURAL AND CONSTRUCTION TECHNOLOGY

COURSE NAME: ADVANCE CONSTRUCTION TECHNOLOGY

CODE: CONS2302

YEAR GROUP: TWO

DATE: FRIDAY, 2017 DECEMBER 15

TIME: 9:00 A.M. – 11:00 A.M.

DURATION: 2 HOURS

EXAMINATION TYPE: FINAL

This Examinations paper has 8 pages

INSTRUCTIONS:

1. THIS EXAMINATION PAPER CONSISTS OF TWO (2) SECTIONS: (A) AND (B)
2. ANSWER ALL QUESTIONS FROM SECTION A
3. SECTION B CONSISTS OF FOUR (4) QUESTIONS. CHOOSE ANY TWO (2)

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

SECTION B

Instructions: Answer any TWO (2) questions from this section.

Question 1

- A. Define cladding as it refers to buildings *(3 marks)*
- B. State THREE (3) reasons for the use of claddings *(6 marks)*
- C. State FOUR (4) cladding materials *(4 marks)*
- D. With the aid of diagrams, differentiate between simple, semi-rigid and rigid connections in steel frame buildings *(9 marks)*
- E. State TWO (2) pros and TWO (2) cons of steel frame structures *(8 marks)*

(Total 30 marks)

Question 2

A civil engineering and building construction firm that is overwhelm with a lot of projects resulting in management deciding to buy a builder's plants instead of hiring.

- A. Compare the advantages of buying a builder's plant instead of hiring one. *(10 marks)*
- B. List FIVE (5) important checks to be made on building plants as preventative maintenance checks. *(5 marks)*
- C. Discuss what you would implement to control noise pollution for plants. *(10 marks)*
- D. List FIVE (5) reasons for the use of a builder's plant on site. *(5 marks)*

(Total 30 marks)

Question 3

Figure 1 shows a ground and first floor plan. The height between floors is 10'-6". You are required to do the following:

- A. calculate the rise and going for the type of stair to be used *(5 marks)*
- B. draw a sectional view of the selected stair design *(10 marks)*
- C. correct specification of the stair design *(15 marks)*

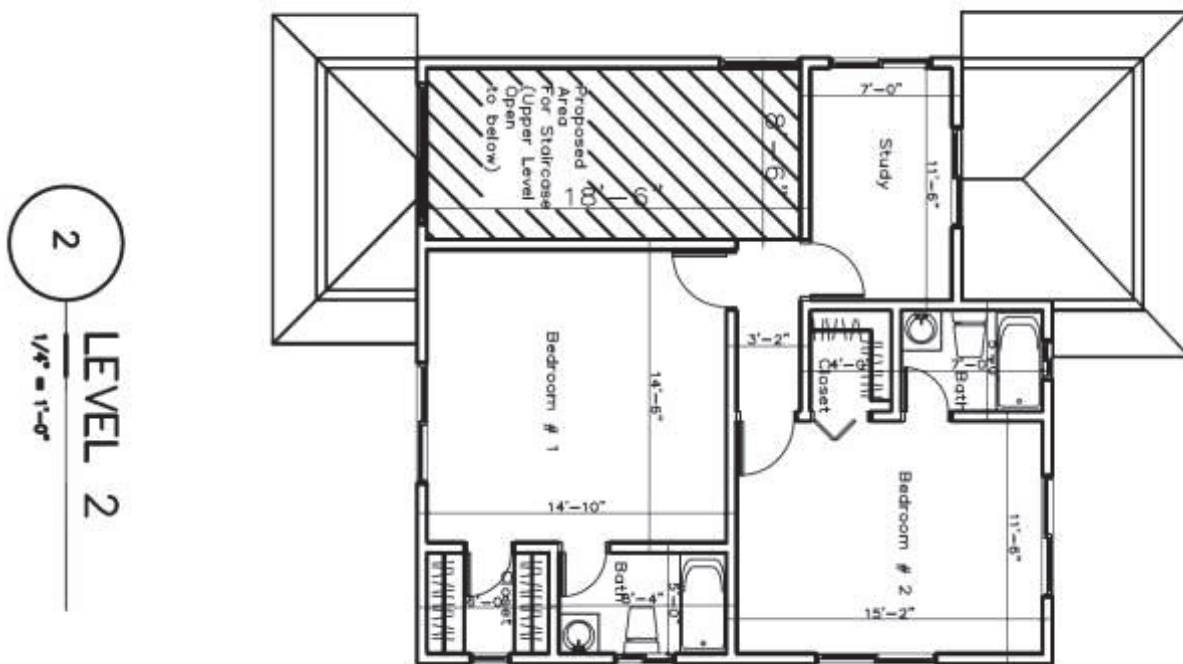


Figure 1

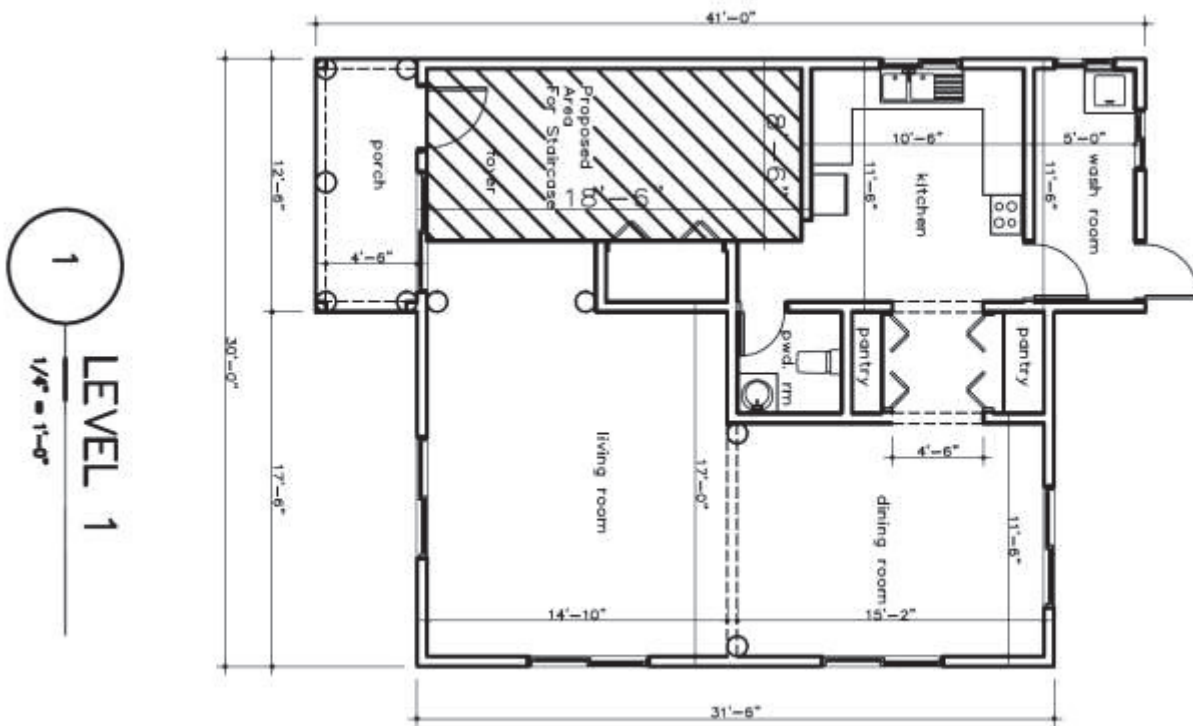


Figure 2

(Total 30 marks)

Question 4

A public-sector organisation is mandated to build One Hundred two- bedroom, one- bathroom residential homes 1200 square feet (112 square metre) in a lower middle-class neighbourhood for civil servants and professionals.

- A. Describe the appropriate method of tendering to be used. (8 marks)
- B. Create a tender document to be given to prospective bidders. (8 marks)
- C. Discuss why bonds are used in the construction industry. (9 marks)
- D. List **FIVE (5)** types of building contracts. (5 marks)

(Total 30 marks)

END OF EXAMINATION