



UGANDA BUSINESS AND TECHNICAL EXAMINATIONS BOARD

PAPER CODE TCWT 204	PROGRAMME NATIONAL CERTIFICATE IN WOODWORK TECHNOLOGY i YEAR II	DATE THURSDAY, 28 TH NOVEMBER 2019
SERIES NOV/DEC 2019	PAPER NAME COMPUTER AIDED DESIGN DRAWING	TIME ALLOWED 3 HOURS

YOU SHOULD HAVE THE FOLLOWING FOR THIS EXAMINATION

A computer with AutoCAD and CD Burning software installed

Non-Programmable Electronic Calculator

Printer

Printing Paper, A4 size

INSTRUCTIONS TO CANDIDATES

1. This paper consists of **three** practical questions.
2. Answer only **two** questions.
3. All questions carry equal marks.
4. **Do not** write anywhere on this question paper.
5. Create a folder on the desktop in your name and registration number where you will save all the work before being picked by the responsible UBTEB Officer at the end of the examination. Both questions **MUST** be saved in this folder.
6. Do not leave the examination room until you are instructed to do so.

Question One

The **Fig.I** shows the front and side elevation of a classroom desk designed for one of the primary school. With all units in millimeters, study it carefully and answer the questions that follow.

- (a) Create a folder on the desktop in Your Name and Registration number e.g. AMONGI SUSAN -UBT100-2017-TC001". Open the AutoCAD Application and save¹ the blank file in Your Registration number e.g. "UBT100-2017-TC001". (03 marks)
- (b) Using AutoCAD Application commands, reproduce both front and side elevation as seen in **Fig.I** above to the correct measurements of dimensions. (35 marks)
- (c) Show all the dimensions of the drawing using the following settings of the dimension style manager,

Lines	Symbols and Arrow head	Text	Primary units
Extend beyond dim lines:—20	First & second style Architectural tick	Text height -30	Precision----- 0
Offset from origin - 0.0625	Arrow size --20	Text placement vertically Above	
Fixed length extension lines-20		Text placement Horizontal centered	
	•	Offset from dim line:— 5	
		Text alignment - ISO standard	

(10 marks)

- (d) Plot the drawing in PDF file and save it in the folder created in 1(a) as "DESK model Pdf".

(02 marks)

¹ **Save** both the AutoCAD and PDF format files in the folder you have created in your name and registration number.

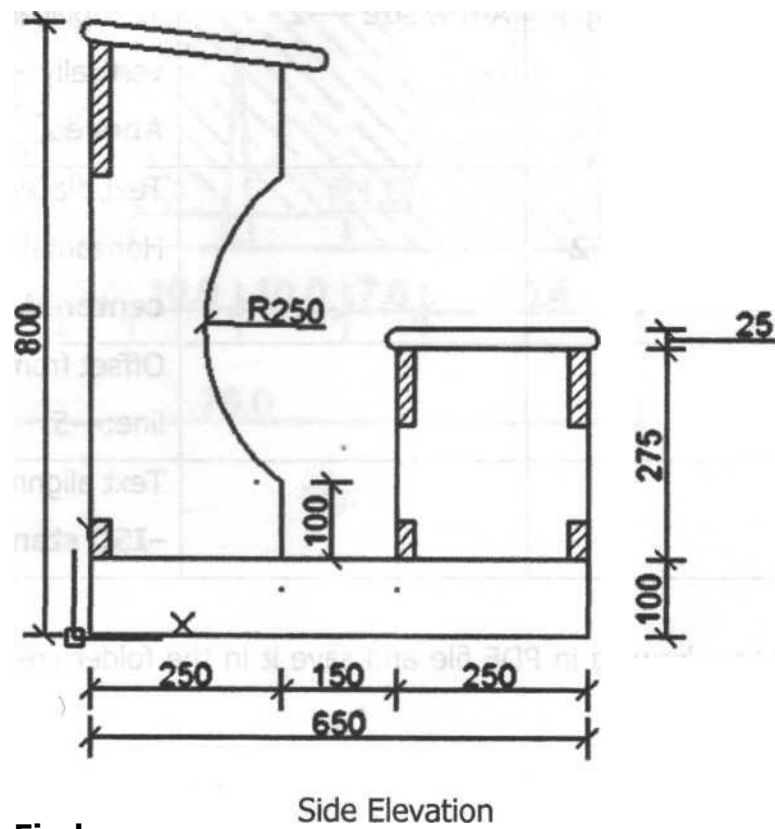
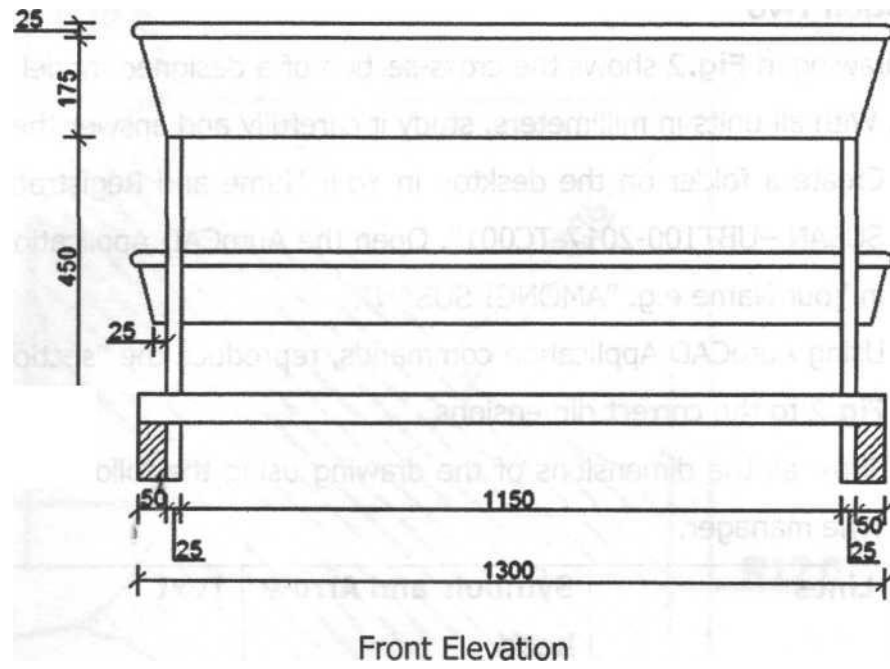


Fig.I

Turn Over

Question Two

The drawing in **Fig.2** shows the cross-section of a designed model of handrail for one of the hotel. With all units in millimeters, study it carefully and answer the questions that follow.

- (a) Create a folder on the desktop in Your Name and Registration number e.g. AMONGI SUSAN -UBT100-2017-TC001". Open the AutoCAD Application and save² the blank file in Your Name e.g. "AMONGI SUSAN". (03 marks)
- (b) Using AutoCAD Application commands, reproduce the "section of hand rail" as seen in **Fig.2** to the correct dimensions. (35 marks)
- (c) Show all the dimensions of the drawing using the following settings in the dimension style manager. (

Lines	Symbols and Arrow head	Text	Primary units
Extend beyond dim lines:—2	First & second style oblique	Text height - 2.5	Precision ----- 0.0
Offset from origin - 0.0625	Arrow size — 2	Text placement vertically - Above	
Fixed length extension lines-2		Text placement Horizontal - centered	
		Offset from dim line:—5	
		Text alignment - ISO standard	

(10 marks)

- (d) Plot the drawing in PDF file and save it in the folder created in 2(a) as "HAND RAIL - model Pdf". (02 marks)

² **Save** both the AutoCAD and PDF format files in the folder you have created in your name and registration number.

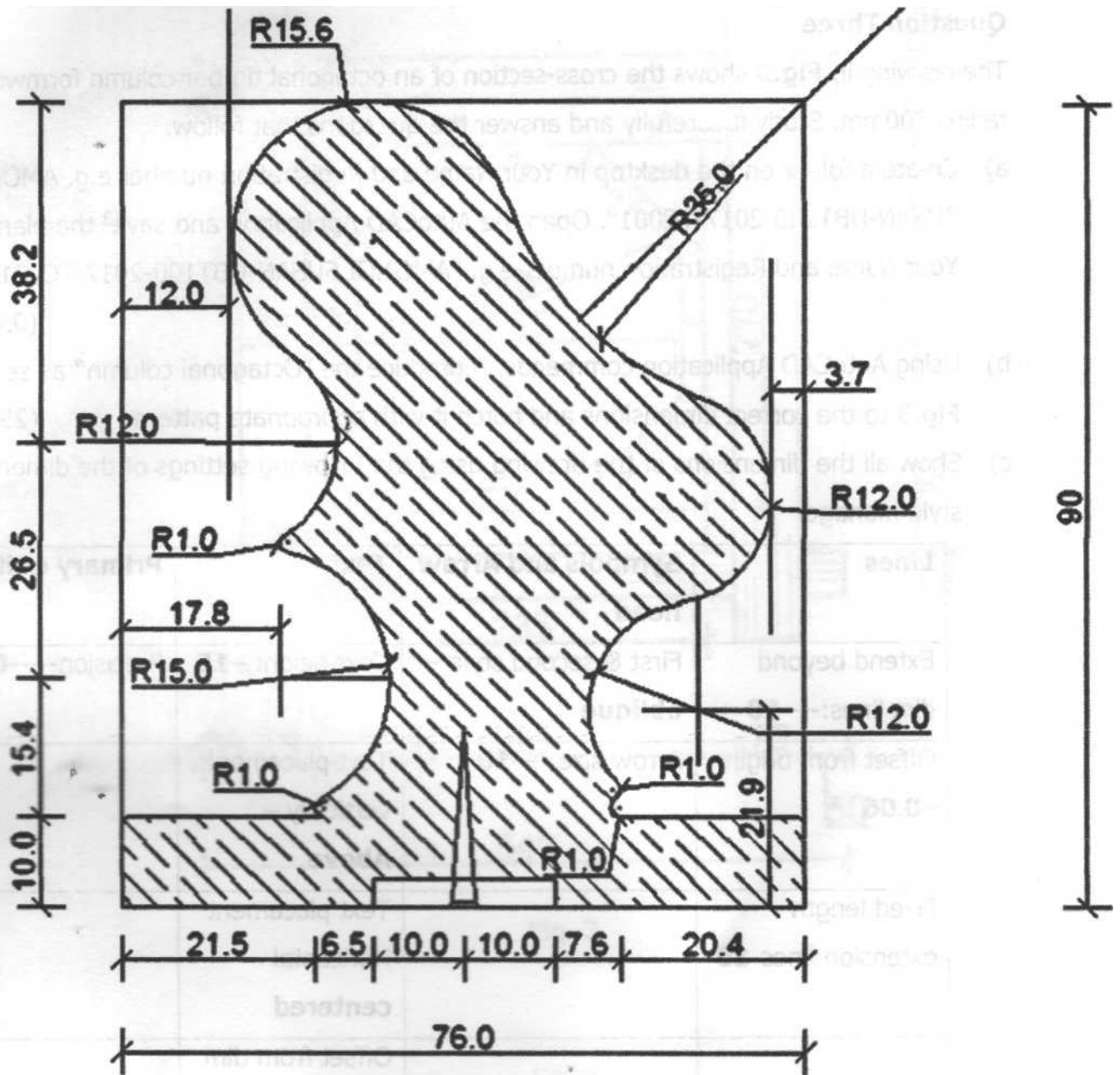


Fig. 2

*

Turn Over

Question Three

The drawing in **Fig.3** shows the cross-section of an octagonal timber column formwork of radius 200mm. Study it carefully and answer the questions that follow.

- a) Create a folder on the desktop in Your Name and Registration number e.g. AMONGI SUSAN-UBT100-2017-TC001". Open the AutoCAD Application and save³ the blank file in Your Name and Registration number e.g. "AMONGI SUSAN-UBT100-2017-TC001".

(03 marks)

- b) Using AutoCAD Application commands, reproduce the "Octagonal column" as seen in **Fig.3** to the correct cjimensions and hatch it with appropriate pattern. (25 marks)

- c) Show all the dimensions of the drawing using the following settings of the dimension style manager

Lines	Symbols and Arrow head	Text	Primary units
Extend beyond dim lines:—10	First & second style - oblique	Text height - 15	Precision----- 0.0
Offset from origin - 0.06	Arrow size — 10	Text placement vertically - Above	
Fixed length extension lines-10		Text placement Horizontal - centered	
	•	Offset from dim line:— 1	
		Text alignment - ISO standard	

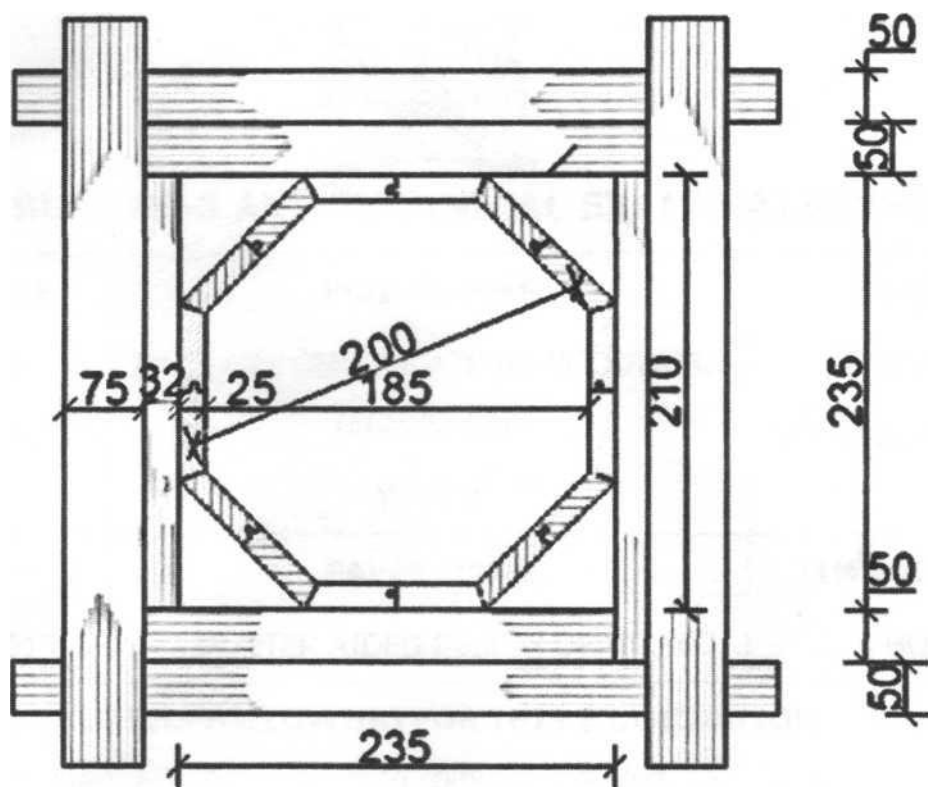
(10 marks)

- d) Create a "Title Block" of your drawing indicating the name of the Institute, Candidates Name, Registration Number, Course, Year of study and Date of Examination. (10 marks)

- e) Plot the drawing in PDF file and save it in the folder created in 3(a) as "Octagonal column-model Pdf".

(02 marks)

³ **Save** both the AutoCAD and PDF format files in the folder you have created in your name and registration number.



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Fig.
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