NATIONAL SENIOR CERTIFICATE EXAMINATION
NOVEMBER 2016

CIVIL TECHNOLOGY

EXAMINATION NUMBER

ANSWER BOOKLET

QUESTION 2.4

Assessment Criteria	Mark	Mark obtained
Correctness	3	
Circle of eyepiece	1	
TOTAL	**4**	

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QUESTION 3.2 CIVIL SERVICES

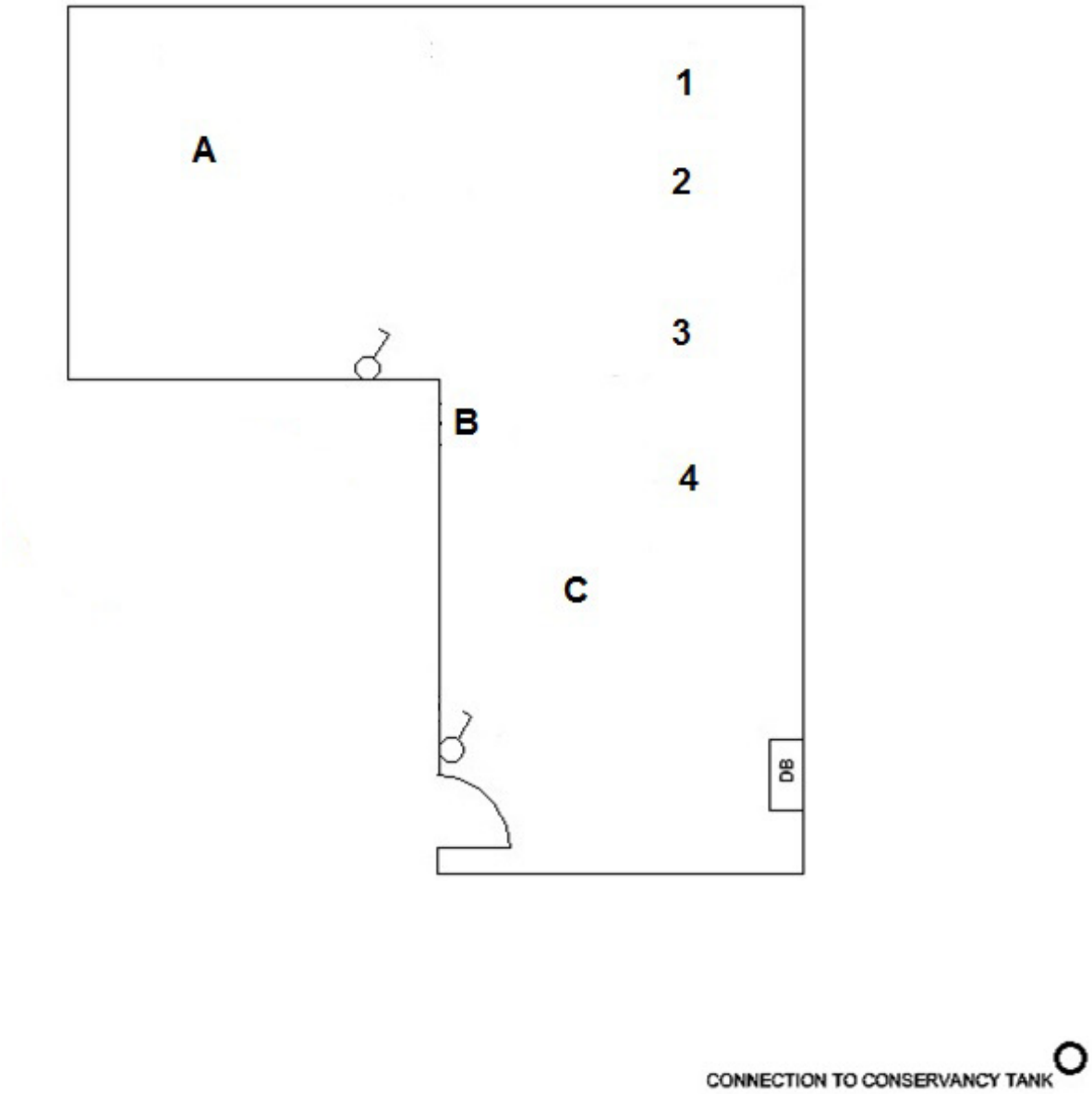

Figure 3.2

	Assessment Criteria	**Marks**	**Mark obtained**
3.2.1	Symbols for sanitary fittings	4	
3.2.2	Correctness of sewerage system	3	
	Correct line type	1	
	Any two abbreviations	2	
	Colour code for ONE pipe	1	
	Diameter of drain pipe indicated	1	
3.2.3	Electrical symbols	3	
	TOTAL	**15**	

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QUESTION 4.4

Quantity Surveying

Item	Measurement	Result	Description
			(4.4.1)
1/			Area of building
			(2)
			Perimeter of building
2/			
2/			
			(3)
			(4.4.2) Bricks
			Total wall area (Southern wall)
1/			
			(1)
			Door area
1/			
			(1)
			Window area
1/			
			(1)
			Total area less openings
			=
			(1)
			Total number of bricks
			(1)
			(4.4.3) Volume of slab:
1/			
			(4)
			(4.4.4) Ratio: 2 Cement: 4 Stone: 4 Sand
			(1)
			Cubic meter stone needed:
			(3)

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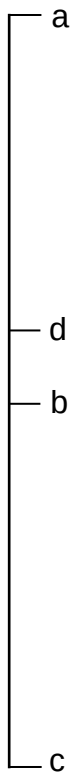
QUESTION 5.2.1 VECTOR DIAGRAM



(6)

QUESTION 5.2.2

Determine the magnitude of the following members.

Member	Magnitude	Mark	Mark obtained
AE		1	
FG		1	
TOTAL		**2**	

(2)

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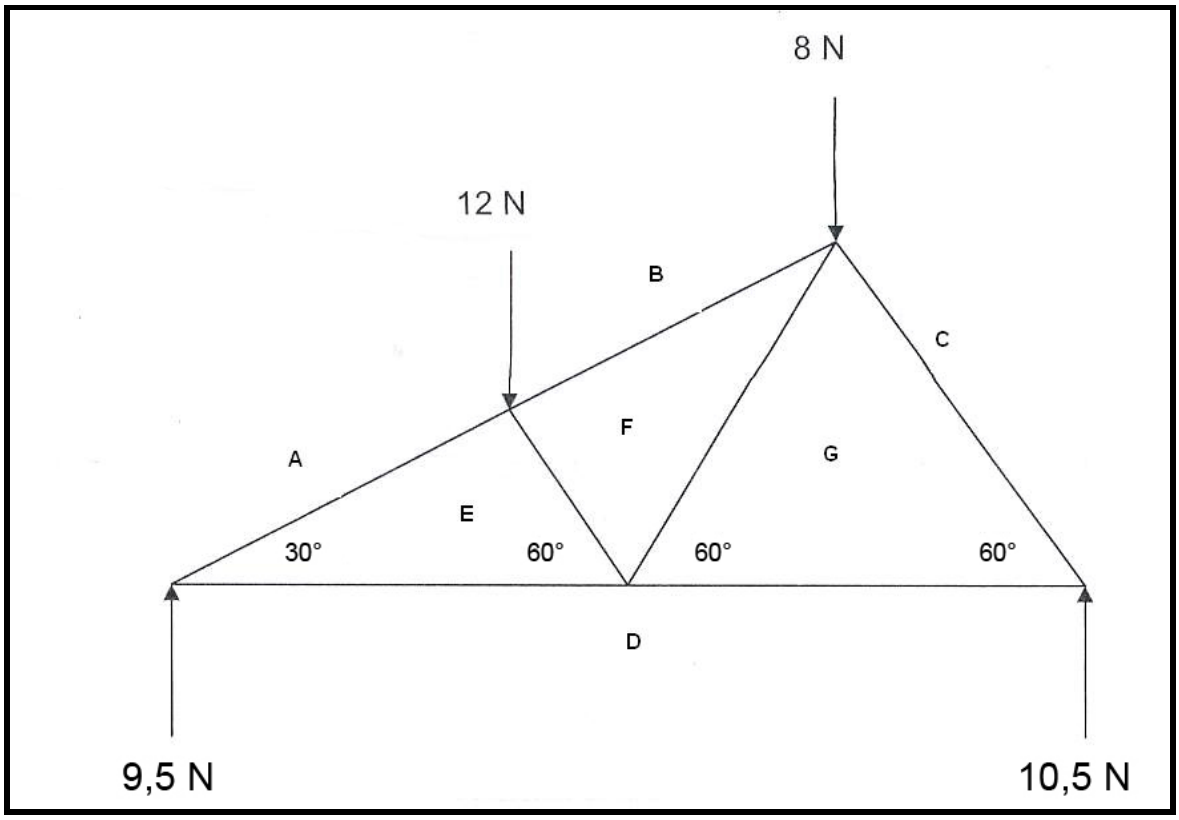
QUESTION 5.2.3

Use arrows to indicate the nature of different members on the space diagram.

**** Members AE, BF, CG, FG, FE and ED correctly indicated 1 mark.



(6)

QUESTION 6.1

	Question	Answer	Marks	Mark obtained
6.1.1	Name the type of eave shown at A.		1	
6.1.2	Identify the missing wooden part at B between the roof covering and the rafter.		1	
6.1.3	Identify part C.		1	
6.1.4	Identify part D.		1	
6.1.5	Identify part E.		1	
6.1.6	Identify part F.		1	
6.1.7	Identify part G.		1	
6.1.8	What will be the minimum measurement at H on the load-bearing wall foundation?		1	
6.1.9	What will be the minimum measurement at J on the load-bearing foundation?		1	
6.1.10	Explain the meaning of the abbreviation NGL.		1	
6.1.11	Explain the meaning of the abbreviation FFL.		1	
6.1.12	The scale of the Sectional view AA is 1:50. Name one other acceptable scale that can be used.		1	
6.1.13	Describe the meaning of the dashed lines on windows.		1	
6.1.14	What will be placed between part G and the slab to prevent penetration of moisture?		1	
6.1.15	Draw the symbol to indicate stock brick on the sectioned wall.		1	
	TOTAL		15	

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QUESTION 6.2

Assessment criteria	**Marks**	**Mark obtained**
Correct elevation	2	
Door	1	
Step	1	
Roof height	2	
Window 1	2	
Window 2	2	
Gable roof with valley	2	
Verge	1	
Eave overhang	1	
Roof ridge	1	
Rainwater pipe	1	
Fascia board	1	
Height of FFL	1	
Height to wall plate	1	
Any FOUR labels	4	
Neatness	2	
TOTAL	**25**	

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