FOR OFFICIAL USE

National Qualifications 2023

Mark

X823/77/01

Engineering Science Answer booklet

TUESDAY, 16 MAY

1:00 PM – 3:30 PM

X8237701

Fill in these boxes and read what is printed below.

Full name of centre

Town

Forename(s)

Surname

Number of seat

Date of birth

Day

Month

Year

Scottish candidate number

Write your answers clearly in this answer booklet. You must clearly identify in the margin the question number you are attempting.

Worksheets for questions 1 (a), 8 (a) and 8 (e) are included. Write your answers to these questions clearly in the spaces provided.

Use **blue** or **black** ink. Sketches, diagrams and graphs may be drawn in pencil.

Before leaving the examination room you must give this booklet to the Invigilator; if you do not, you may lose all the marks for this paper.

SQA ©

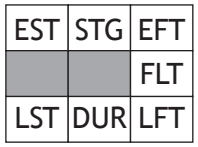
X8237701 01

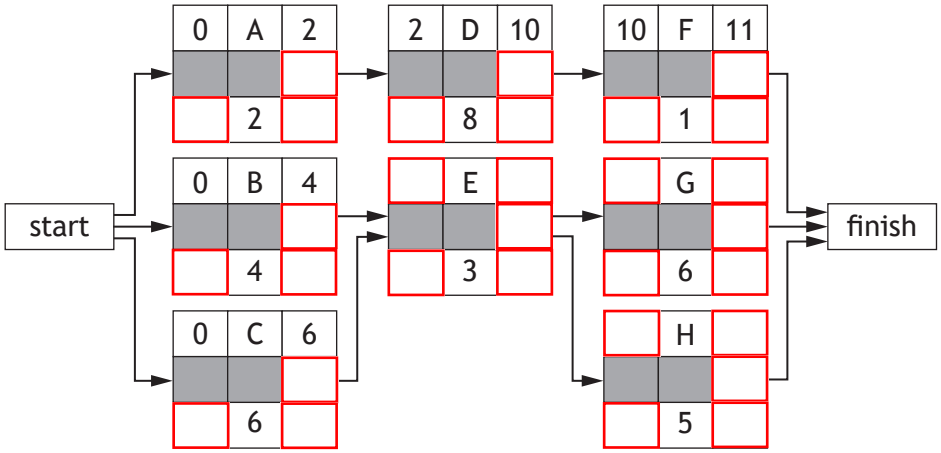
DO NOT WRITE IN THIS MARGIN

Worksheet for question 1 (a)

Stage	Precedence	Duration (weeks)
A	--	2
B	--	4
C	--	6
D	A	8
E	B, C	3
F	D	1
G	E	6
H	E	5

- STG – stage
- DUR – duration
- EST – earliest start time
- EFT – earliest finish time
- LST – latest start time
- LFT – latest finish time
- FLT – float





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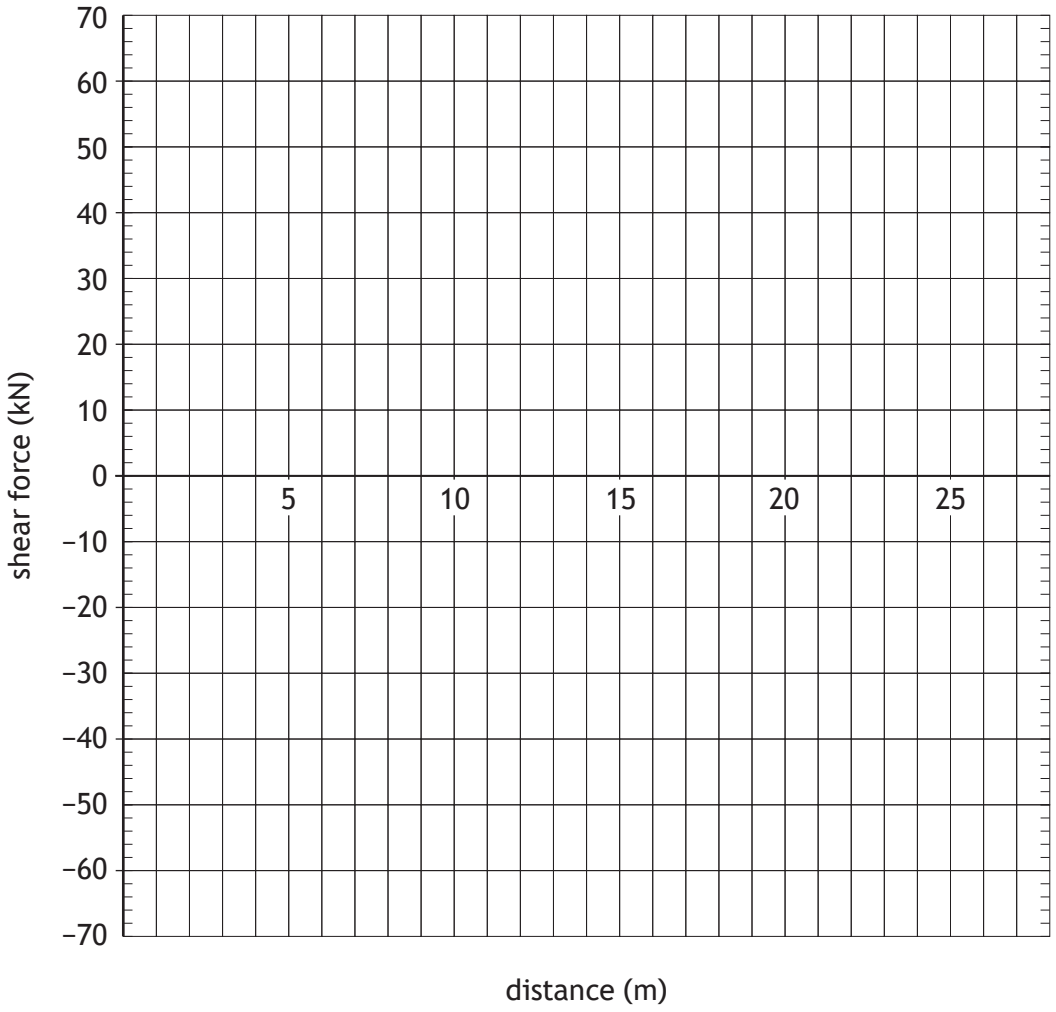
Worksheet for question 8 (a)



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Worksheet for question 8 (e)

Strain Gauge	Location
R_{G1}	
R_{G2}	
R_{G3}	
R_{G4}	

[END OF WORKSHEETS]

ENTER NUMBER OF QUESTION

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For marker's use	
Question	Marks