

| Candidate Name | Centre Number | Candidate Number |
|----------------|---------------|------------------|
|                |               |                  |

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS**

**Advanced Subsidiary General Certificate of Education  
Advanced General Certificate of Education**

**MEI STRUCTURED MATHEMATICS**

**4771**

Decision Mathematics 1

INSERT

Monday

**20 JUNE 2005**

Morning

1 hour 30 minutes

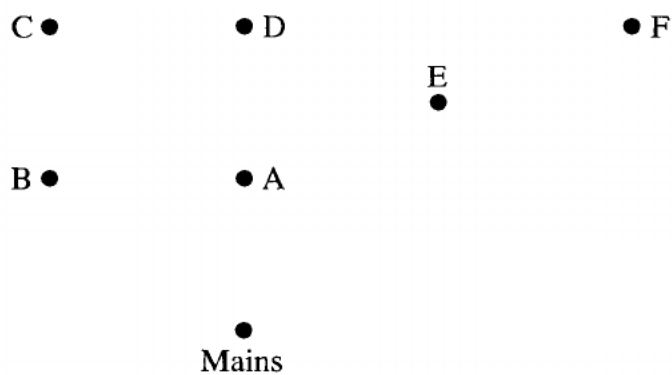
**INSTRUCTIONS TO CANDIDATES**

- This insert should be used in Questions **1, 2** and **4**.
- Write your name, centre number and candidate number in the spaces provided at the top of this page and attach it to your answer booklet.

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**This insert consists of 4 printed pages.**

1 (i)



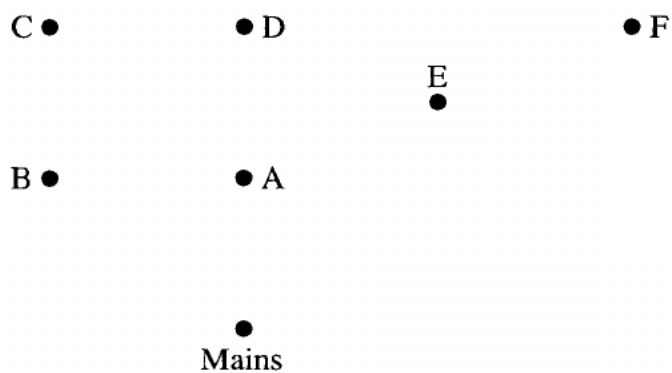
Minimum number of connections: \_\_\_\_\_

(ii) Minimum number of connections using junction box: \_\_\_\_\_

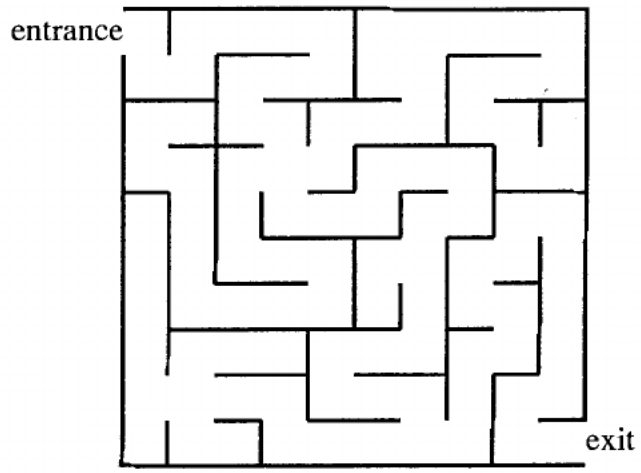
(iii) \_\_\_\_\_  
\_\_\_\_\_

(iv) \_\_\_\_\_  
\_\_\_\_\_

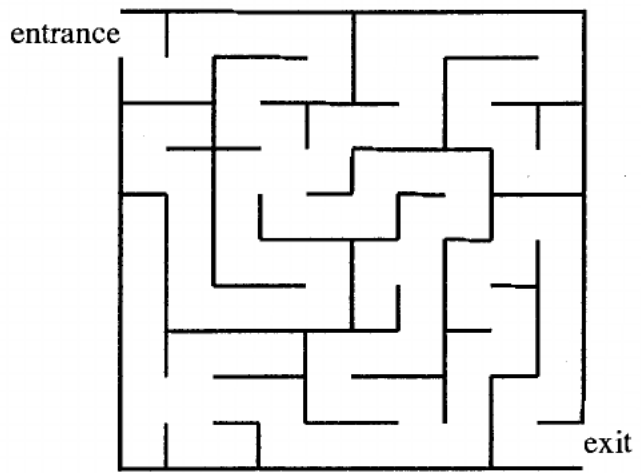
**Spare copy of diagram**



2 (i) Janet's route



John's route



(ii) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(iii) \_\_\_\_\_  
\_\_\_\_\_

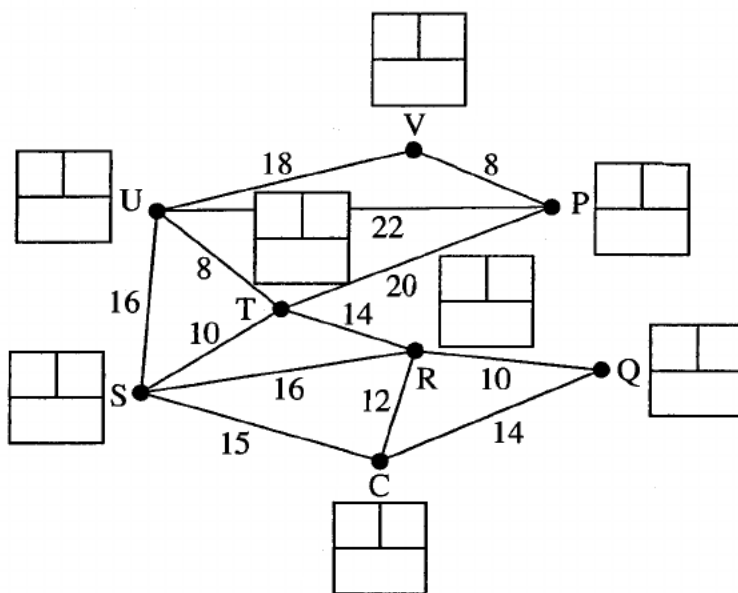
(iv) \_\_\_\_\_  
\_\_\_\_\_

4 (i)

key: order of labelling 

|  |  |
|--|--|
|  |  |
|  |  |

 label  
working values



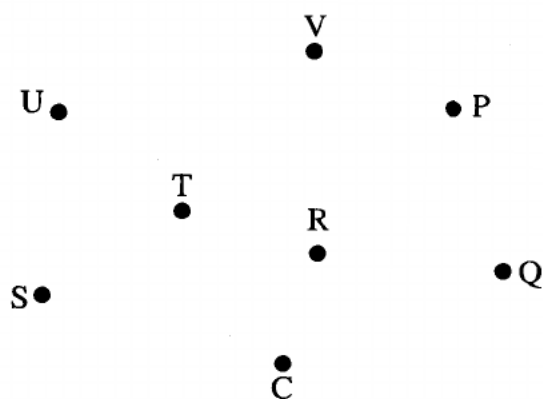
Shortest distances: 

| PC | QC | RC | SC | TC | UC | VC |
|----|----|----|----|----|----|----|
|    |    |    |    |    |    |    |

Shortest route from P to C: \_\_\_\_\_

Shortest route from V to C: \_\_\_\_\_

(ii)



Order of including arcs: \_\_\_\_\_

Length of connector: \_\_\_\_\_