



Complete, fold and seal
(see note 2 below)

SURNAME: ~~han~~ hOmars

FORENAME(S): Simon Perle

Examination Answer Books

12 Pages

Instructions to Candidates

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

1	Student Number	P146671
2	Title of Examination Paper	Advances in Mathematics
3	Module Code	MA10084
4	Date and Time of Examination	12:00 15/1/18
5	Examination Venue	Gym
6	Seat Number	6079
7	Number of Answer Books handed in	1

(Gweler yr ochr arall am y fersiwn Cymraeg)

List the numbers of the questions you have attempted	Office Use
Q1 a	20
b	
c	
d	
Q3 a	17 1/2
b	
c	
Q4 a	9
b	
c	
	46 1/2
Total	62 1/2



Prifysgol Cymru
y Drindod Dewi Sant
University of Wales
Trinity Saint David

Llyfr Atebion Arholiadau

12 Tudalen

Cyfarwyddiadau i Ymgeiswyr

1. Rhwch yr holl wybodaeth y gofynnir amdani yn y blychau isod.
2. Rhwch eich enw yn y lle a ddarparwyd ar y dde, pligwch et a'i selio i lawr (gan ddefnyddio'r label a ddarparwyd) i guddio'ch enw.

3. Rhaid i'r atebion fod mewn llawysgriften ddarlennadwy. Gall yr Arholwyr yrhail all anwybyddu sgript annarllennadwy, neu drefnu iddi gael ei theipio a chael yr ymgeisydd i dalu.

5. Dechreuwch bob ateb ar dudalen newydd. Gwnewch unrhyw ffras nodiadau yn y llyfr atebion a thynnu llinell drwyddynt.
6. Ni ddylid rhwgo unrhyw ran o'r llyfr hwn; rhaid ei gyflwyno yn gyfan.
7. Os defnyddir mwy nag un llyfr, rhwymwch hwy gyda'i gilydd gan ddefnyddio'r tagiau sydd ar gael oddi wrth y gwyliwr/gwylwyr.
8. Rhaid dychwelyd pob llyfr. Ni chaniateir mynd â llyfrau atebion, wedi eu defnyddio neu heb eu defnyddio, allan o'r lleoliad arholi o dan unrhyw amgylchiadau.

arhol! o dan unrhyw amgylchïadau.

7	Nifer y Llyfrau Atebion a gyflwynwyd	
6	Rhif Sedd	
5	Lleoliad yr Arholiad	
4	Dyddiad ac Amser yr Arholiad	
3	Cod y Modwl	
2	Teitl y Papur Arholiad	
1	Rhif Myfyrwr	

(See the other side for English version)

[illegible]

Llenwch, plynwch a seliwch
(gweler nodyn 2 isod)

CYFENN:

ENW(AU) CYNTAF:

Q1a, Is a table on a router that lists the neighbor router and interface. It is unique to router. ✓

2

Q1a ii Is a table that shows all neighbour router information for mapping a topology. ✓

1

Q1a iii Shows successor router to destinations. ✓

2

Q1a iv Is the cost metric from next hop address to destination. ✓

2

Q1a v Is the distance to next hop address plus the advertised distance to destination. ✓

2

Q1b Hello
Update
Acknowledgement
Query
Reply

5

Q1c There is a mismatch with the MD5 authentication key ID. Reconfiguring the key ID in MD5 authentication config can resolve the mismatch. ✓

4

Q1d The update has auto summarised the network on R1, the issue is that it now includes R2 network. The issue could be that finding the destination can increase traffic and cause loops. To resolve disable auto summarisation and manually set address for network summarization. ✓

routing loop

2

Q2 a It is the unique identifier of a router within an OSPF network. ✓

1/2

What is the purpose?

Q3a6 The interface on a router with the highest IP address

Q3a6 The interface on a router configured with the highest IP address

The ^{highest} IP address of a loop back interface set on the router.

A manual configuration of the router ID.

Q3b Distance Vector routing protocol updates periodically, the router takes the updates and compare it to their own routing table to see if changes need to be made.

Link-state routing protocol updates only when changes have been made, when router receives update an algorithm is used to determine if any changes to shortest path.

Q3c ~~Designated~~ A Designated Router is an assigned router within OSPF that has the responsibility to send updates to the other routers using multicast. This lowers traffic heavily as it is only a single router sending the updates not all of them. A Backup Designated Router is assigned at the same time as the DR, but is only used in the event the DR goes offline.

Q4a It is a metric value assigned to routing protocols

Q4a1 0

Q4a11 5

Q4a111 90

Q4a1111 110

Q4a11111 255

Q4a It is a metric value that is assigned to every routing protocol can be used to determine which protocols are being used within a network.

Q4b A floating static route has been added to R1 and R2, this is a static route that can be used to connect to the interface in the event the static route or protocols fail.

Q4c

Dynamic routing protocol

Distance Vector

Link-state

GRP

IS-IS

RIPv1

IGRP EIGRP

OSPF

RIPv2

Question No.

Examiner Only

Arholwr yn unig

Rhif y Cwestiwn