COURSE NAME / CODE	BTEC National Subsidiary / Diploma / Extended Diploma in IT
UNIT(s) No / Name	9 – Computer Networks / 10 – Communications Technology
LEVEL	3
ASSIGNMENT NUMBER & TITLE	1 – Networking/Not-working & From End to End

LECTURER/ASSESSOR	Sandra Taylor
ISSUE DATE	19th September 2016
DEADLINE DATE	3rd October 2016
SUBMISSION DATE	
FIRST SUBMISSION/RESUBMISSION?*	
RESUBMISSION DATE**	
RESUBMISSION AUTHORISATION BY LEAD INTERNAL VERIFIER*	
AUTHORISATION DATE	

*All resubmissions must be authorised by the Lead Internal Verifier. Only **one** resubmission is possible per assignment, providing:
- The learner has met the initial deadlines set in the assignment, or ha met an agreed deadline extension
- The tutor considers that the learner will be able to provide improved evidence without further guidance
- Evidence submitted for assessment has been authenticated and accompanied by a signed and dated declaration of authenticity by the learner

Any resubmission evidence **must be submitted within 10 working days of receipt of assessment

Student declaration

I declare that this assignment is all my own work and the sources of information and material I have used (including the internet) have been fully identified and properly acknowledged as required.

STUDENT NAME	SIGNATURE

ASSESSMENT DETAILS & GRADING CRITERIA

(NB: Columns 1 &2 of the table below will be completed once the assignment has been submitted) Please note that criteria & evidence should be aimed to give the learner the maximum grade available within their qualification (i.e. A, Pass, Distinction)

Learning Aims Covered	
Unit 09 - LO1	Know types of network systems and protocols
Unit 10 – LO1	Understand the communication principles of computer networks
Unit 10 – LO2	Know the main elements of data communications systems

GRADING CRITERIA FOR TASK		EVIDENCE	1) EVIDENCE SEEN		2) CRITERIA MET			
			Y	N	Y	I	N	IV
9.P1	Describe the types of networks available and how they relate to a particular network standards and protocols	Task 1. **Website/poster**						
9.P2	Describe why different network standards and protocols are necessary	Task 2. **Website/poster/report**						
9.M1	Compare the benefits and disadvantages of peer-to-peer network and client/server networks	Task 5. **Report**						
10.P1	Explain how networks communicate	Task 1. **Website/poster**						
10.P2	Identify communication protocols and models	Task 3. **Presentation/booklet**						
10.P3	Identify different types of communication devices	Task 4. **List**						

10.P4	Describe what data elements are and why they are important	Task 4. **List**					
10.M1	Explain why communication protocols are important	Task 3. **Report**					
10.D1	Compare the OSI seven layer model and the TCP/IP model	Task 3. **Report**					

KEY: Y = Yes, I = Incomplete, N = No
BREAKDOWN OF HOW GRADES WILL BE AWARDED:
(NB: Please tick as appropriate)

TYPE OF QUALIFICATION	TICK	DESCRIPTION
BTECS / WORKSKILLS	√	Pass / Merit / Distinction / Fail
A LEVELS / A2		A-U

Internal Verification of Assignment Brief

IV Full Name		Sign		Date:	
LIV Full Name		Sign		Date:	

Please note that your assignment **MUST** have the following (unless otherwise stated):

1. Cover page
2. Contents page
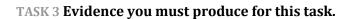3. Introduction
4. Conclusion
5. Bibliography

SCENARIO
A company has commissioned you to write publicity materials explaining some of the basics of IT communication. You have been asked to explain possible network solutions to a client based on a scenario that has been given.

TASK 1 **Evidence you must produce for this task.**

To achieve the criteria you must show that you are able to:	Unit	Criterion Reference
You have been asked to create either an interactive web page or a poster which could describe to a layperson what protocols and standards are and how they feature in the development and function of a network	9	P1
As part of your presentation you have been asked to explain how networks communicate	10	P1

TASK 2 **Evidence you must produce for this task.**

To achieve the criteria you must show that you are able to:	Unit	Criterion Reference
Examples of the different protocols should be given in association with the correct network standards, discussed within their context of use • Examples should be appropriate and realistic • Diagrams are a must to emphasise your point	9	P2

2

To achieve the criteria you must show that you are able to:	Unit	Criterion Reference
You have been asked to create a presentation / booklet that details the OSI and TCP/IP models and gives an outline of the different communication protocols that are in use today	10	P2
Going further, explain why the protocols are important	10	M1
Working on from this, compare their features and uses	10	D1

TASK 4 **Evidence you must produce for this task.**

To achieve the criteria you must show that you are able to:	Unit	Criterion Reference
To create a network there are different types of communication devices that exist. Create a list of the devices and describe, with visuals, how they are used	10	P3
Then create a list of the data elements (expand on the list below) that exist and in your own words describe what they are and why they are important: • CRC • Encapsulation • Datagrams • Addresses • Sequence Numbers	10	P4

TASK 5 **Evidence you must produce for this task.**

To achieve the criteria you must show that you are able to:	Unit	Criterion Reference
Write a report detailing the benefits and disadvantages of: • Peer-to-Peer network • Client/Server network Use visuals to assist in your answers	09	M1

Sources of information	Textbooks • Dodd, A Z – The Essential Guide to Telecommunications, 4th Edition (Prentice Hall, 2005) ISBN-10 0131487256, ISBN-13 978-0131487253 • Hallberg, B – Networking: A Beginner's Guide, 5th Edition (Osborne/McGraw-Hill US, 2009) ISBN-10 0071633553, ISBN-13 978-0071633550 • Lowe, D – Networking All-in-One Desk Reference for Dummies, 3rd Edition (John Wiley & Sons, 2008) ISBN-10 0470179155, ISB-13 978-0470179154 • Schiller, J – Mobile Communications, 2nd Edition (Addison Wesley, 2003) ISBN-10-0321123816, ISBN-13 978-0321123817 **Website** • www.howstuffworks.com • www.webopedia.com

10 P2

- [ ] Presentation / booklet
- [ ] OSI Model
- [ ] TCP/IP model
- [ ] Different communication protocols in use today
- [ ] Visuals

10 P3

- [ ] List
- [ ] Different types of communication devices
- [ ] How devices are used
- [ ] Visuals

10 P4

- [ ] List of data elements
- [ ] CRC
- [ ] Encapsulation
- [ ] Datagrams
- [ ] Addresses
- [ ] Sequence Numbers
- [ ] Why data elements are important

9 P1

- [ ] Interactive website / poster
- [ ] What are standards
- [ ] What Protocols are
- [ ] What Network standards are
- [ ] How they feature in the development and function of a network

9 P2

- [ ] Interactive website / poster
- [ ] Examples of different protocols
- [ ] Examples of different network standards

10 P1

- [ ] Interactive website / poster
- [ ] How networks communicate
- [ ] Visuals

9 M1

- [ ] Report
- [ ] Benefits of Peer to Peer network
- [ ] Benefits of Client/Server network
- [ ] Disadvantages of Peer to Peer network
- [ ] Disadvantages of Client/Server network
- [ ] Visuals

10 M1

- [ ] Presentation / booket
- [ ] Why protocols are important
- [ ] Examples

10 D1

- [ ] Presentation / booklet
- [ ] Compare features
- [ ] Compares uses