

Mark Scheme (Final)

Summer 2014

BTEC Level 1/Level 2 First in
Information and Creative Technology

UNIT 1: The Online World

20560_E08

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BTEC Next Generation Mark Scheme Template

ICT Unit 1 Version 8

| Question Number | Answer | Mark |
|-----------------|-----------------------------|------|
| 1 | HyperText Transfer Protocol | 1 |

| Question Number | Answer | Mark |
|-----------------|--------------------------|------|
| 2 | VoIP Web conferencing | 2 |

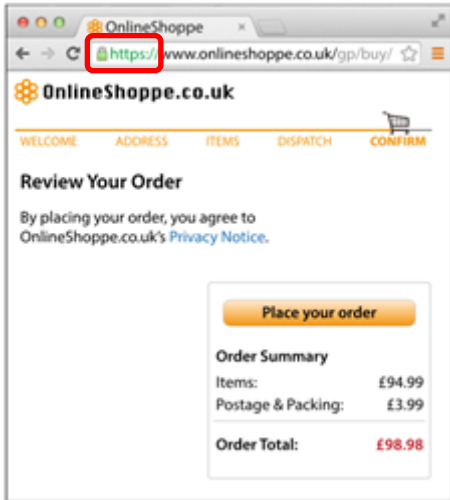
| Question Number | Answer | Mark |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 3a | Award one mark for any of the following : <ul style="list-style-type: none">• Username• Student number• User ID• Password | 1 |
| 3b | Award one mark for any of the following : <ul style="list-style-type: none">• Tracking/monitoring progress• Setting up groups/forums• Enable collaborative working• Work can be made available after lesson/learner can work from home if absent• Marking/Feedback/Grades can be tracked• Can include multimedia content (e.g. quiz)• Communication between teacher and learner• Teacher can access work/upload resources/lessons from home• Teacher can access work at anytime• Website filtering• Parental access/monitoring• Teacher saves time/paper/cost as no need for printing• Central storage for resources <p>Accept any other valid response.</p> | 1 |

| Question Number | Answer | Mark |
|-----------------|------------|------|
| 4a | Anti-virus | 1 |
| 4b | Encryption | 1 |

| Question Number | Answer | Mark |
|-----------------|----------------------------------------------|------|
| 5 | Incoming mail – POP3 Outgoing mail – SMTP | 2 |

| Question Number | Answer | Mark |
|-----------------|--------------------|------|
| 6 | Email Web space | 2 |

| Question Number | Answer | Mark |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7a | <p>Award one mark for any of the following up to a maximum of two marks:</p> <ul style="list-style-type: none"> • Infrared/IR • Microwave • Wi-Fi/3G/4G • Bluetooth • Satellite • NFC (Near Field Communication) <p>Accept any valid response.</p> | 2 |
| 7b | <p>Award one mark for any of the following up to a maximum of two marks:</p> <ul style="list-style-type: none"> • Speed can be slower • Connection can be less consistent/reliable • Signal blocked by physical objects/walls • Interference (from electrical objects) • Can be affected by weather • Range dependent/Distance from router • Can be less secure <p>Do not accept 'interference' more than once unless both answers have different expansions or examples.</p> <p>Do not accept reference to cost.</p> <p>Accept any valid response.</p> | 2 |

| Question Number | Answer | Mark | | | | | | | | |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--|--------|--------|--------------------|-------|---------------------|---------------|---|
| 8 | <p>Padlock with https hotspot selected</p>  <p>The screenshot shows a web browser window with the address bar containing 'https://www.onlineshoppe.co.uk/gp/buy/'. A red box highlights the 'https' part of the URL, indicating a secure connection. The page content includes a 'Review Your Order' section with a 'Place your order' button and an order summary table.</p> <table border="1"> <thead> <tr> <th colspan="2">Order Summary</th> </tr> </thead> <tbody> <tr> <td>Items:</td> <td>£94.99</td> </tr> <tr> <td>Postage & Packing:</td> <td>£3.99</td> </tr> <tr> <td>Order Total:</td> <td>£98.98</td> </tr> </tbody> </table> | Order Summary | | Items: | £94.99 | Postage & Packing: | £3.99 | Order Total: | £98.98 | 1 |
| Order Summary | | | | | | | | | | |
| Items: | £94.99 | | | | | | | | | |
| Postage & Packing: | £3.99 | | | | | | | | | |
| Order Total: | £98.98 | | | | | | | | | |

| Question Number | Answer | Mark |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 9a | <p>Award one mark for any of the following</p> <div style="text-align: center;"> <div style="display: inline-block; border: 1px solid black; border-radius: 10px; padding: 2px 10px; margin-right: 20px;"></div> <div style="display: inline-block; border: 1px solid black; border-radius: 10px; padding: 2px 10px;">Edexcel</div> </div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="text-align: center;">A</div> <div style="text-align: center;">B</div> </div> <ul style="list-style-type: none"> • Is used to create a hyperlink • Sets the destination address (of a link) • Opens/starts the hyperlink/link <p>Do not accept protocol/domain name/pathname.</p> <p>Accept any valid response.</p> | 1 |
| 9b | <p>Award one mark for any of the following</p> <div style="text-align: center;"> <div style="display: inline-block; border: 1px solid black; border-radius: 10px; padding: 2px 10px; margin-right: 20px;"></div> <div style="display: inline-block; border: 1px solid black; border-radius: 10px; padding: 2px 10px;">Edexcel</div> </div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="text-align: center;">A</div> <div style="text-align: center;">B</div> </div> <ul style="list-style-type: none"> • Sets the text that will be displayed • What 'link' will be shown to the user • Shows user what to click on to follow link/make hyperlink work • Closes the HTML tag/hyperlink/link <p>Accept any valid response.</p> | 1 |

| Question Number | Answer | Mark |
|-----------------|--------------|------|
| 10 | Wiki Blog | 2 |

| Question Number | Answer | Mark |
|-----------------|------------------------|------|
| 11 | Router Access point | 2 |

| Question Number | Answer | Mark |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 12a | <p>Award one mark for identification of each aspect of the role of TCP, up to a total of two marks.</p> <ul style="list-style-type: none"> • TCP establishes a connection to the IP address (1) then terminates the connection after transmission (1) • TCP breaks the data into individual packets (1) and reassembles them (in the correct order) (1) • TCP detects errors in transmission/ensures correct data has been delivered (1) and resends/recovers the data. <p>Accept any other valid response.</p> | 2 |
| 12b | <p>Award one mark for identification of each aspect of the role of IP, up to a total of two marks.</p> <ul style="list-style-type: none"> • Identifies the (IP) address data (of each packet) (1) and directs the packet to the correct computer/server (1) • Defines how data is to be structured (1) and transfers data to the correct place (1) <p>Accept any other valid response.</p> | 2 |

| Question Number | Answer | Mark |
|-----------------|------------------------|------|
| 13 | <p>A PoP B NAP</p> | 2 |

| Question Number | Answer | Mark |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 14 | <p>Award one mark for the identification and one additional mark for the appropriate expansion to a maximum of two marks each.</p> <ul style="list-style-type: none">• Jasper and Zain can edit the content/make changes (1) so they can fix/check for mistakes/improve content (1)• Jasper and Zain can make comments (using markup feature) (1) which will help them work collaboratively (1)• Jasper and Zain can't delete the file (1) so the file would be protected (1) <p>Accept any other valid response.</p> | 4 |

| Question Number | Answer | Mark |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 15 | <p>Award one mark for the identification and one additional mark for the appropriate expansion to a maximum of two marks each.</p> <ul style="list-style-type: none"> • Faster delivery time (1) because data is split into smaller packets (1) • Data packets are not delayed (1) as packets can be re-directed to avoid broken parts of a network (1) • Each packet can take the most efficient route (1) because packets do not have to arrive in order (1) • Very efficient use of the network (1) because it uses the fastest path/connection/route available (1) • Self-healing (1) if one path gets too busy/damaged the packets are automatically rerouted (1) • Errors are localised (1) so that if a packet becomes damaged, only that packet must be re-sent (rather than the entire file) (1) <p>Accept any other valid response.</p> | 4 |

| Question Number | Answer | Mark |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 16 | <p>Award one mark for identification and a further one mark for appropriate expansion up to a maximum of two marks each.</p> <ul style="list-style-type: none"> • All users will have same functions available (1) because they will be using the same software version (1) • No need to use email (1) because the file is stored in a central location (1) • Improved version control (1) because the system will share the most up-to-date version (1) • No need to collate everyone's ideas (1) because everyone is working on the same file (simultaneously)(1) • Other parties can respond to others' suggestions more quickly (1) because changes are 'live'/ people can work remotely/from home/internationally (1) • Effort/work is not duplicated (1) because users can view others' comments/input 'live' (1) • Could save money (1) because users do not all have to install software on their machines (1) <p>Accept any other valid response.</p> | 4 |

| Question Number | Answer | Mark |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 17 | <p>Award one mark for identification and a further one mark for appropriate expansion up to a maximum of two marks.</p> <ul style="list-style-type: none"> • The packet contains the (destination/IP) address (1) so each part of the network can work out where to send the packet next (1) • The packet contains the protocol (1) so each part of the network knows how to process the data (1) <p>Accept any other valid response.</p> | 2 |

| Question Number | Indicative Content | Mark |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 18 | <p>Responses may reference the Data Protection Act or Computer Misuse Act but to achieve marks, these do not need to be named specifically.</p> <p>Security</p> <ul style="list-style-type: none"> • Centre has to ensure adequate physical prevention to access of stored data (e.g. making sure the IT systems cannot be accessed by unauthorised people within the centre – locking doors etc) • Centre has to ensure adequate software-based prevention (e.g. screensavers, encryption, passwords, access control, firewalls, anti-virus to protect the children’s data) • The data may only be used by the registered people in order to limit threats of unauthorised access (e.g. Centre Manager may have higher access levels than instructors) • The information must be kept safe and secure by the centre, including backing up and adequate security measures • The centre must not transfer files outside of the European Economic Area unless the country that the data is being sent to has a suitable data protection law <p>Use of the data</p> <ul style="list-style-type: none"> • The centre must register how it will use data so that how data is used and processed can be monitored • The data may only be used for the recorded purpose (e.g. emergency contact number may be provided in case of an accident but centre staff must not use for personal reasons) • The centre must not keep data longer than is necessary – e.g. once the required time expires, the activity centre should destroy the children’s records <p>Accuracy of data</p> <ul style="list-style-type: none"> • The data held by the centre must be accurate and be kept up to date (e.g. they may ask parents to provide updated records where necessary) <p>Other considerations</p> <ul style="list-style-type: none"> • Consequences including fines, prosecution, being sued etc. <p>Accept any valid response.</p> | 8 |

| Level | Descriptor |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0 0 marks | No rewardable material |
| 1 1-3 marks | A few key points identified, or one point described in some detail. The answer is likely to be in the form of a list. Points made will be superficial/generic and not applied/directly linked to the situation in the question. |
| 2 4-6 marks | Some points identified, or a few key points described. Consideration of more than one area of legislation but there may be more emphasis on one of them. The answer may be unbalanced. Most points made will be relevant to the situation in the question, but the link will not always be clear. |
| 3 7-8 marks | Range of points described, or a few key points explained in depth. All sides of the case are considered and the answer is well-balanced, giving weight to all aspects of legislation. The majority of points made will be relevant and there will be a clear link to the situation in the question. |