GRADE 7 – COMPUTING

Topics 3.1, 3.2 and 3.3

PRACTICE OBJECTIVE QUESTIONS

Name: _____ Class: _____ Date: _____

SECTION A: MULTIPLE-CHOICE QUESTIONS (MCQs)

1. **Which of the following is an example of an IP address?**
   A. www.example.com B. 192.168.1.1 C. https://website.com D. .org
2. **An IP address is mainly made up of:**
   A. Letters separated by spaces B. Numerical blocks separated by dots or colons C. Words separated by hyphens D. Pictures and symbols
3. **A website is hosted on a:**
   A. Wireless mouse B. Web server C. WNIC D. Base station
4. **A URL is best described as:**
   A. A website's name or address B. A type of cable C. A radio frequency D. A security key
5. **Why are URLs used instead of IP addresses?**
   A. They are easier to remember B. They are always shorter numbers C. They make websites load without servers D. They remove the need for the internet
6. **What does DNS stand for?**
   A. Digital Number Service B. Domain Name System C. Data Network Signal D. Domain Number Security
7. **A DNS server stores:**
   A. Only pictures B. Domain names and their matching IP addresses C. Passwords for every website D. Radio-wave frequencies
8. **What does a DNS server return to a browser?**
   A. The website's password B. The matching IP address C. A digital certificate D. A wireless signal
9. **What error message may be returned if a domain name is never found?**
   A. 403 error B. 404 error C. 505 error D. 100 error
10. **Which protocol indicates a secure website in the notes?**
    A. HTTP B. FTP C. HTTPS D. DNS
11. **In HTTPS, the letter 's' stands for:**
    A. Server B. Safe C. Secure D. System
12. **Encryption changes data into:**
    A. A larger screen B. A secret code C. A URL D. An IP address
13. **Which symbol may appear in a browser's address bar to indicate a secure connection?**
    A. A closed padlock B. A speaker C. A battery D. A printer
14. **Which is an example of sensitive information?**
    A. A radio wave B. Payment details C. A cycle D. A browser tab
15. **A network is:**
    A. A group of connected devices B. A single website C. A type of password D. A computer screen

16. **A wired network uses:**
A. Radio waves only B. Cables C. Bluetooth pairing D. Cells

17. **Ethernet is described as a:**
A. Secure, low-cost, high-speed wired connection B. Short-range wireless network C. Website security certificate D. Type of encryption

18. **Wireless networks communicate using:**
A. Paper signals B. Radio waves C. Water waves D. Sound only

19. **The average range of a wi-fi network from the WAP in the notes is:**
A. 10 metres B. 25 metres C. 50 metres D. 100 metres

20. **Bluetooth devices connect over:**
A. Very long distances B. Short distances C. Entire countries D. Only wired cables

21. **The standard Bluetooth range is:**
A. 2 metres B. 10 metres C. 50 metres D. 500 metres

22. **A cellular network divides geographical areas into smaller areas called:**
A. Cycles B. Cells C. Domains D. Ciphers

23. **Each cell contains a:**
A. Base station B. DNS database C. WNIC D. Digital certificate

24. **The main difference between 3G, 4G and 5G stated is:**
A. Screen size B. Data transmission speed C. The colour of the phone D. The number of keys

25. **A data error is:**
A. A correct copy of data B. A mistake or accidental change in data C. A type of wireless network D. A website name

26. **Which of these can cause data transmission errors?**
A. Noise in communication channels B. Weak signal strength C. Hardware malfunction D. All of these

27. **Radio-wave interference can occur when:**
A. Devices transmit on similar frequencies B. Cables are neatly arranged C. A URL is typed correctly D. A certificate is viewed

28. **Crosstalk happens when:**
A. Cables are close together and signals interfere B. Two websites share a URL C. A phone moves between cells D. A browser opens a page

29. **Encryption is the process of:**
A. Converting data into a code to prevent unauthorized access B. Deleting all data C. Increasing wi-fi range D. Changing a URL into a domain

30. **The original readable message before encryption is called:**
A. Ciphertext B. Plaintext C. Frequency D. Crosstalk

31. **Decryption means:**
A. Scrambling a message B. Turning scrambled data back into its original form C. Sending radio waves D. Finding a website's IP address

32. **A Caesar cipher works by:**
A. Representing letters with symbols B. Shifting each letter a fixed number of places C. Changing numbers into URLs D. Using radio waves

33. A Pigpen cipher represents each letter using:

A. A symbol B. A number of cycles C. An IP address D. A base station

SECTION B – FILL IN THE BLANKS

1. An _____ is a numerical address used to identify a web server on a network.

2. A website is stored on a _____.

3. A domain name or URL is like a shortcut or name tag for an _____ address.

4. DNS stands for _____.

5. A DNS server looks up a domain name in its _____.

6. The browser contacts the web server using the matching _____ address.

7. A secure website uses the protocol _____.

8. The 's' in HTTPS stands for _____.

9. Encryption scrambles data into a _____ code.

10. Wireless networks use _____ waves to transmit data.

11. Bluetooth has a range of _____ meters.

12. A cellular network is divided into smaller geographical areas called _____.

13. Signals from nearby cables interfering with one another is called _____.

14. Encryption helps prevent _____ access to data.

15. The process of restoring encrypted data to its original form is called _____.

SECTION C – TRUE OR FALSE

1. Every URL has a matching IP address. (True / False)

2. Most web servers store only one website. (True / False)

3. URLs are generally easier for people to remember than long strings of numbers. (True / False)

4. A DNS server can pass a request to another DNS server if it cannot find a domain name. (True / False)

5. HTTP is the secure protocol described in the notes. (True / False)

6. A closed padlock symbol indicates that a website is secure. (True / False)

7. A digital certificate can be viewed by clicking the padlock symbol. (True / False)

8. Ethernet is a type of wired connection. (True / False)

9. Radio waves are a type of electromagnetic radiation. (True / False)

10. Wi-fi has an average range of 10 metres. (True / False)

11. Cellular networks cover large geographical areas. (True / False)

12. 3G is newer than 5G. (True / False)

13. Data errors can occur during creation, processing, transmission or storage. (True / False)

14. Crosstalk is caused by electrical signals in nearby cables interfering with each other. (True / False)

15. Encryption makes data easier for unauthorized people to read. (True / False)

SECTION D – MATCH THE COLUMNS

1. Internet Addresses and Security

Column A	Column B	Match
1. URL	A. Matches domain names with IP addresses	
2. IP address	B. Easier-to-remember website name/address	
3. DNS	C. Numerical address of a web server	
4. HTTPS	D. Secure web protocol	

2. Data Transmission and Encryption

Column A	Column B	Match
1. Data error	A. Restoring coded data to its original form	
2. Crosstalk	B. A mistake or accidental change in data	
3. Encryption	C. Shifting each letter a fixed number of places	
4. Decryption	D. Converting data into code to prevent unauthorized access	
5. Caesar cipher	E. Interference between signals in nearby cables	

SECTION E – PUT THE STEPS IN THE CORRECT ORDER

How DNS works

_____ The browser contacts the web server at that IP address.

_____ You type a URL into the browser.

_____ The DNS server looks up the domain name in its database.

_____ The browser sends the domain name to a DNS server.

_____ The DNS server returns the matching IP address.

How encryption works

_____ The recipient uses the correct key/cipher to unscramble the data.

_____ A message is written.

_____ The message is scrambled using a secret code/key.

GRADE 7 – COMPUTING

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PRACTICE OBJECTIVE QUESTIONS – ANSWER KEY

SECTION A: MULTIPLE-CHOICE QUESTIONS (MCQs)

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   A. They are easier to remember ✓ B. They are always shorter numbers C. They make websites load without servers D. They remove the need for the internet

6. **What does DNS stand for?**
   A. Digital Number Service **B. Domain Name System ✓** C. Data Network Signal D. Domain Number Security

7. **A DNS server stores:**
   A. Only pictures **B. Domain names and their matching IP addresses ✓** C. Passwords for every website D. Radio-wave frequencies

8. **What does a DNS server return to a browser?**
   A. The website's password **B. The matching IP address ✓** C. A digital certificate D. A wireless signal

9. **What error message may be returned if a domain name is never found?**
   A. 403 error **B. 404 error ✓** C. 505 error D. 100 error

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11. **In HTTPS, the letter 's' stands for:**
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12. **Encryption changes data into:**
    A. A larger screen **B. A secret code ✓** C. A URL D. An IP address

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31. **Decryption means:**
A. Scrambling a message **B. Turning scrambled data back into its original form ✓** C. Sending radio waves D. Finding a website's IP address

32. **A Caesar cipher works by:**
A. Representing letters with symbols **B. Shifting each letter a fixed number of places ✓** C. Changing numbers into URLs D. Using radio waves

33. **A Pigpen cipher represents each letter using:**
A. A symbol ✓ B. A number of cycles C. An IP address D. A base station

SECTION B – FILL IN THE BLANKS

1. An **IP address** is a numerical address used to identify a web server on a network.
2. A website is stored on a **web server**.
3. A domain name or URL is like a shortcut or name tag for an **IP** address.
4. DNS stands for **Domain Name System**.
5. A DNS server looks up a domain name in its **database**.
6. The browser contacts the web server using the matching **IP** address.
7. A secure website uses the protocol **HTTPS**.
8. The 's' in HTTPS stands for **secure**.
9. Encryption scrambles data into a **secret** code.
10. Wireless networks use **radio** waves to transmit data.
11. Bluetooth has a range of **10** meters.
12. A cellular network is divided into smaller geographical areas called **cells**.
13. Signals from nearby cables interfering with one another is called **crosstalk**.
14. Encryption helps prevent **unauthorized** access to data.
15. The process of restoring encrypted data to its original form is called **decryption**.

SECTION C – TRUE OR FALSE

1. Every URL has a matching IP address. (**True ✓** / False)
2. Most web servers store only one website. (True / **False ✓**)
3. URLs are generally easier for people to remember than long strings of numbers. (**True ✓** / False)
4. A DNS server can pass a request to another DNS server if it cannot find a domain name. (**True ✓** / False)
5. HTTP is the secure protocol described in the notes. (True / **False ✓**)
6. A closed padlock symbol indicates that a website is secure. (**True ✓** / False)
7. A digital certificate can be viewed by clicking the padlock symbol. (**True ✓** / False)
8. Ethernet is a type of wired connection. (**True ✓** / False)
9. Radio waves are a type of electromagnetic radiation. (**True ✓** / False)
10. Wi-fi has an average range of 10 metres. (True / **False ✓**)
11. Cellular networks cover large geographical areas. (**True ✓** / False)
12. 3G is newer than 5G. (True / **False ✓**)
13. Data errors can occur during creation, processing, transmission or storage. (**True ✓** / False)
14. Crosstalk is caused by electrical signals in nearby cables interfering with each other. (**True ✓** / False)
15. Encryption makes data easier for unauthorized people to read. (True / **False ✓**)

SECTION D – MATCH THE COLUMNS

1. Internet Addresses and Security

Column A	Column B	Answer
1. URL	A. Matches domain names with IP addresses	**1 → B**
2. IP address	B. Easier-to-remember website name/address	**2 → C**
3. DNS	C. Numerical address of a web server	**3 → A**
4. HTTPS	D. Secure web protocol	**4 → D**

2. Data Transmission and Encryption

Column A	Column B	Answer
1. Data error	A. Restoring coded data to its original form	**1 → B**
2. Crosstalk	B. A mistake or accidental change in data	**2 → E**
3. Encryption	C. Shifting each letter a fixed number of places	**3 → D**
4. Decryption	D. Converting data into code to prevent unauthorized access	**4 → A**
5. Caesar cipher	E. Interference between signals in nearby cables	**5 → C**

SECTION E – PUT THE STEPS IN THE CORRECT ORDER

How DNS works

[5] The browser contacts the web server at that IP address.

[1] You type a URL into the browser.

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[4] The DNS server returns the matching IP address.

How encryption works

[3] The recipient uses the correct key/cipher to unscramble the data.

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