



Ilyas writes game review articles for the school paper. He needs to have the article emailed to the editor, Sarah by a deadline. The student body are excited to read his article and as such hackers in the school community are working hard to get copies of the article before its publication.

1. The article text is emailed together with the images but are compressed separately. Which form of compression is best suited for each.

Text _____

Images _____

_____ [4]

2. The articles are gaining popularity and as such, Priya who writes articles on the student body wants to interview Ilyas to ask how he is finding his newfound fame and to get to know him more. She will record the interview using a mic and her laptop. How is sound captured and stored in computer?

_____ [2]

3. What are the benefits of sending the article by email after compressing them?

_____ [2]

4. Convert the decimal number 128 into an 8 bit binary number.

_____ [1]

5. Convert the hexadecimal number 4F into an a denary number.

[2]

6. Stuart believes that using a ASCII character set would use up less storage than using a Unicode character set. Explain whether this is true or false.

[2]

7. The ASCII code for the lowercase character z is 122. What is the hexadecimal code?

[2]

8. Why do computer scientists use hexadecimal to store characters instead of binary?

[2]

9. The watermelon emoji is often used as a symbol of anti-apartheid because its colours represent the colours of the Palestinian territories where freedom to publicly display the flag is not accepted.

The emoji: 🍉

The Unicode: 1F349

Convert this to binary

Hexadecimal	1	F	3	4	9
Binary	0001	----	0011	----	----

[3]

