There were 14 scripts. The exam consisted of four questions worth 25 marks each. The lowest mark was 27 and the highest was 85. The median (and mode) was 69; the mean was 66. Note that these statistics are for the marks before scaling (which I will not be told about).

1b(iii): This problem was difficult for several students.

1f(iii): Several students asserted $\mathrm{Hom}_{\mathbb{Z}}(\mathbb{Z}/n\mathbb{Z}, Q) \cong 0$ without proof.

2d: To receive full marks, one must also say that the isomorphism is induced by the cross product.

2e: Several students treated singular simplices and singular chains (that is, formal sums of singular simplices) as being interchangable.

3a: Making a mistake in part (a) made parts (b) and (c) extremely difficult. So double-checking one's work here was crucial.

3b: The cohomology group should have been written as $H^k(T;\mathbb{Z})$, not as $H_k(T;\mathbb{Z})$. This typo was caught by several students (and was announced during the exam).

3c: Many students showed that, for example, $[a^* + c^*] \cup [b^* + c^*] = -[U^*]$ by evaluating both sides on the fundamental class $[U - V]$. This is a valid technique because $H^2(T;\mathbb{Z}) \cong \mathrm{Hom}_{\mathbb{Z}}(H_2(T);\mathbb{Z})$; that is, because the module $\mathrm{Ext}^1_{\mathbb{Z}}(H_1(T), \mathbb{Z})$ vanishes. However, only one student pointed this out. No marks were gained/deducted for spotting/missing this subtlety.

3c: When giving the square "multiplication table", one must indicate how the row and column headers combine to give the table entry. This was needed because the cup product is not commutative.

4a: To receive full marks, one had to define the bundle and its topology.

4c: Several students made the following argument. "The Möbius band has a double cover, thus the Möbius band cannot be orientable."

It was very difficult to receive full marks here without using the formal definition of an orientation, as given in part (b).

4g: To receive full marks, one also had to "compute" $H_k(M)$ for $k > 3$.