**Relative Frequency**

|  |  |  |
| --- | --- | --- |
| Name : | Class : | Date : |

|  |  |  |
| --- | --- | --- |
| Mark : | /10 | % |

|  |  |
| --- | --- |
| **1)** Elisabeth has a biased coin. The probability of it landing on a a head is 0.6. Elisabeth is going to toss the coin 110 times.  Work out an estimate for the number of times the coin will land on a head. | [1] |
| **2)** Liam has a biased coin. The probability of it landing on a a head is 0.7. Liam is going to toss the coin 140 times.  Work out an estimate for the number of times the coin will land on a head. | [1] |
| **3)** Harrison rolls a dice 240 times.  Work out an estimate for the number of times Harrison rolls an even number | [1] |
| **4)** Cameron rolls a dice 348 times.  Work out an estimate for the number of times Cameron rolls a number less than 4 | [1] |
| **5)** The scores for a group of students are recorded in the table below.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Score** | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | **Frequency** | 3 | 2 | 9 | 12 | 15 | 2 | 1 |   Find the probability of selecting a student  a)  with a score of 5       b)  with a score of 9 | [1] |
| **6)** The scores for a group of students are recorded in the table below.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Score** | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | **Frequency** | 2 | 2 | 5 | 7 | 5 | 3 | 3 |   Find the probability of selecting a student  a)  with a score less than or equal to 11       b)  with a score greater than 10 | [1] |
| **7)** The scores for a group of students are recorded in the table below.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Score** | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | **Frequency** | 1 | 1 | 12 | 6 | 20 | 2 | 3 |   Find the probability of selecting a student  a)  with a score less than or equal to 5       b) with a score greater than 7 | [1] |
| **8)** The test results of 49 students is recorded in the two-way table below. One student is chosen at random.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **Grade** | | | **Total** | | **A** | **B** | **C** | | **Male** | 9 | 13 | 10 | 32 | | **Female** | 6 | 8 | 3 | 17 | | **Total** | 15 | 21 | 13 | 49 |   Find the probability that the student is male and got a grade B. | [1] |
| **9)** The test results of 72 students is recorded in the two-way table below. One student is chosen at random. Find the probability that the student got a B.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **Grade** | | | **Total** | | **A** | **B** | **C** | | **Male** | 14 | 20 | 10 | 44 | | **Female** | 2 | 18 | 8 | 28 | | **Total** | 16 | 38 | 18 | 72 | | [1] |
| **10)** The test results of a group of students is recorded in the two-way table below. One student is chosen at random. Find the probability that the student is male.   |  |  |  |  | | --- | --- | --- | --- | |  | **Grade** | | | | **A** | **B** | **C** | | **Male** | 3 | 6 | 11 | | **Female** | 7 | 2 | 5 | | [1] |

**Solutions for the assessment Relative Frequency**

|  |  |
| --- | --- |
| **1)** | **2)** |
| **3)** | **4)** |
| **5)** a) P(score of 5) = 1/22, b) P(score of 9) = 1/22 | **6)** a) P(less than or equal to 11) =  , b) P(greater than 10) = |
| **7)** a) P(less than or equal to 5) =  , b) P(greater than 7) = | **8)** P(male and got a grade B) = |
| **9)** P(got a B) = | **10)** P(is male) = |