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| **MATHEMATICS DEPARTMENT** | |  |
| **Course:** **ATMAA** | |
| **Topic Title**: **Skills Test 3** | |
| Student Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_2016 | | |
| Special Instructions: Calculators Allowed | Time Allowed: 30 mins | | |
|  | Marks: / 28 | | |

The following information relates to Questions 1 and 2.

The following table resulted from a survey of smokers and non-smokers.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Males** | **Females** | **Total** |
| **Smokers** | 202 | 130 | 332 |
| **Non- smokers** | 446 | 294 | 740 |
| Total | 648 | 424 | 1072 |

**Question 1 (1 mark)**

The percentage of women in the survey who are smokers is approximately:

A 12.1 B 30.7 C 39.2 D 39.6 E 42.1

**Question 2 (1 mark)**

Which of the following segmented column graphs represents the survey data?

|  |  |  |
| --- | --- | --- |
| Chapter_01TT1_UN003A | Chapter_01TT1_UN004 B | Chapter_01TT1_UN005C |
| Chapter_01TT1_UN006 D | Chapter_01TT1_UN007 E |  |

**Question 3 (4, 1, 1, 1, 1, 4: 12 marks)**

The table below represents the results of a survey that determined the age of the survey participants and whether or not they were blood donors.

a) Complete the two-way table:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | | |
|  | Blood Donor | Non-donor |  |
| 16 – 18 years | 8 |  | 25 |
| 19 – 25 years | 17 | 42 |  |
| 26 – 40 years | 29 |  |  |
| 41 – 65 years |  | 33 | 42 |
|  |  | 143 |  |

b) How many of the 16–18 year olds did not donate blood?

c) How many 26–40 year olds were surveyed?

d) How many 41–65 year olds donated blood?

e) How many of the participants surveyed were blood donors?

f) Convert the two-way table to a percentage two-way table.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | | |
|  | Blood Donor | Non-donor |  |
| 16 – 18 years |  |  |  |
| 19 – 25 years |  |  |  |
| 26 – 40 years |  |  |  |
| 41 – 65 years |  |  |  |
|  |  |  |  |

**Question 4 (3, 1, 1, 1, 3, 5: mark)**

Each employee of a small business was asked whether they had attained any university qualifications.

Four of the 15 people working as secretaries/assistants and five of the eight members of management

had attained university qualifications, whereas 21 of the 52 office staff had not.

a) Draw a two-way table to represent the data.

b) How many of the office staff had attained a university qualification?

c) How many people does the small business employ altogether?

d) How many of the employees have a university qualification?

e) Convert the two-way table to a percentage two-way table.

f ) Use the data in the table to construct a segmented column graph.

