

MATHEMATICS DEPARTMENT

Course: ATMAA

Topic Title: Skills Test 2



Student Name: Solutions

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)

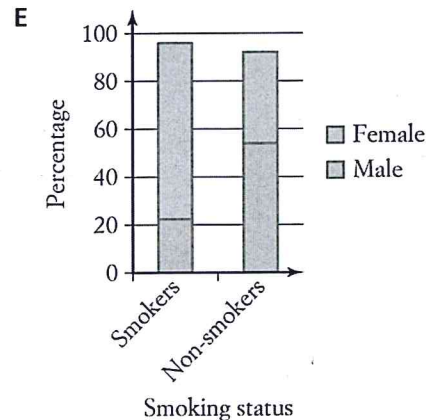
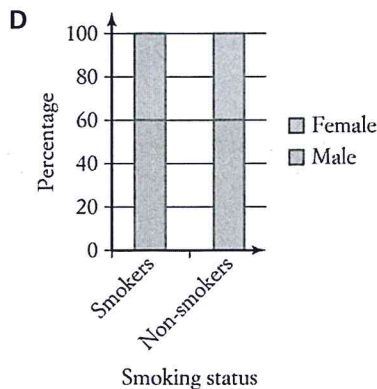
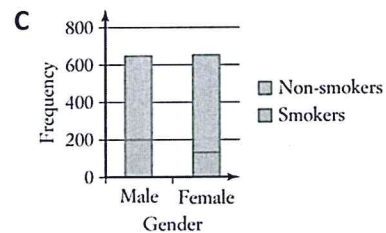
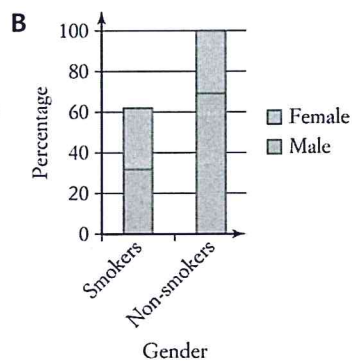
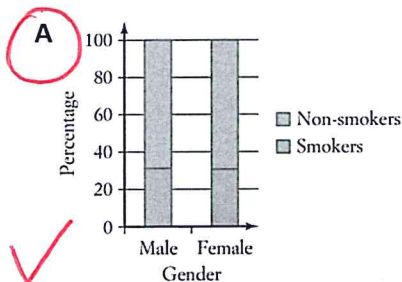
The percentage of women in the survey who are smokers is approximately:

- 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?



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	17	25
19 – 25 years	17	42	59
26 – 40 years	29	51	80
41 – 65 years	9	33	42
	63	143	206

✓✓✓✓

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

17 ✓

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

80 ✓

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

9 ✓

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

63 ✓

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

	Blood Donor	Non-donor	
16 – 18 years	4%	8%	12%
19 – 25 years	8%	20%	28%
26 – 40 years	14%	25%	39%
41 – 65 years	5%	16%	21%
	31%	69%	100%

✓

✓

* 15 4%
 students may
 round up 1 category
 to get 31%.

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.

	Uni Quals	No Uni Quals	Total.
Secretaries / Ass.	4	11	15
management	5	3	8
office staff.	31	21	52

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

31 ✓

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

75 ✓

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

40 ✓

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

	Uni	No Uni	Total
Sec/Ass	10%	31%	
manage.	12.5%	9%	
office.	77.5%	60%	
Total	100%	100%	100%

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

