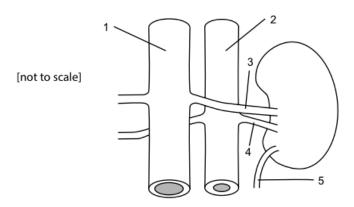


## **BMAT Biology Compilation (2009 - 2016)**

## Kidneys

1 The diagram shows a kidney and its associated vessels from a healthy individual.



Which row correctly identifies the vessels along with the concentration of urea they contain?

	lowest concentration of urea	highest concentration of urea
Α	1 is the aorta	2 is the vena cava
В	1 is the vena cava	2 is the aorta
С	3 is the renal artery	5 is the urethra
D	3 is the renal vein	5 is the ureter
E	4 is the renal vein	5 is the ureter
F	4 is the renal artery	5 is the urethra

2016

13 A human consumes the same amount and type of food and drink on two consecutive days. He also does the same activities on both days. However, one of the days is hot and the other is cold.

Which row in the table correctly shows the mass of two substances found in the urine of this human on the hot day compared with the cold day?

	Mass of substance found in urine on a hot day compared with a cold day	
	water	urea
Α	less	less
В	less	same
С	less	more
D	same	same
E	same	more
F	more	less
G	more	same
н	more	more



## **BMAT Biology Compilation (2009 - 2016)**



## Kidneys

13 In humans, the water content in the blood is regulated via the hormonal system.

Which of the following occur when the water content of the blood is too low?

- 1 pituitary gland releases less ADH
- 2 pituitary gland releases more ADH
- 3 increase in water reabsorption by the kidneys
- 4 decrease in water reabsorption by the kidneys
- 5 increased reabsorption of glucose in the kidneys
- 6 decreased reabsorption of glucose in the kidneys
- A 1 and 3 only
- B 2 and 3 only
- C 1 and 4 only
- D 2 and 4 only
- E 1, 3 and 5 only
- F 2, 4 and 6 only
- G 1, 4 and 5 only
- **H** 2, 3 and 6 only

2014