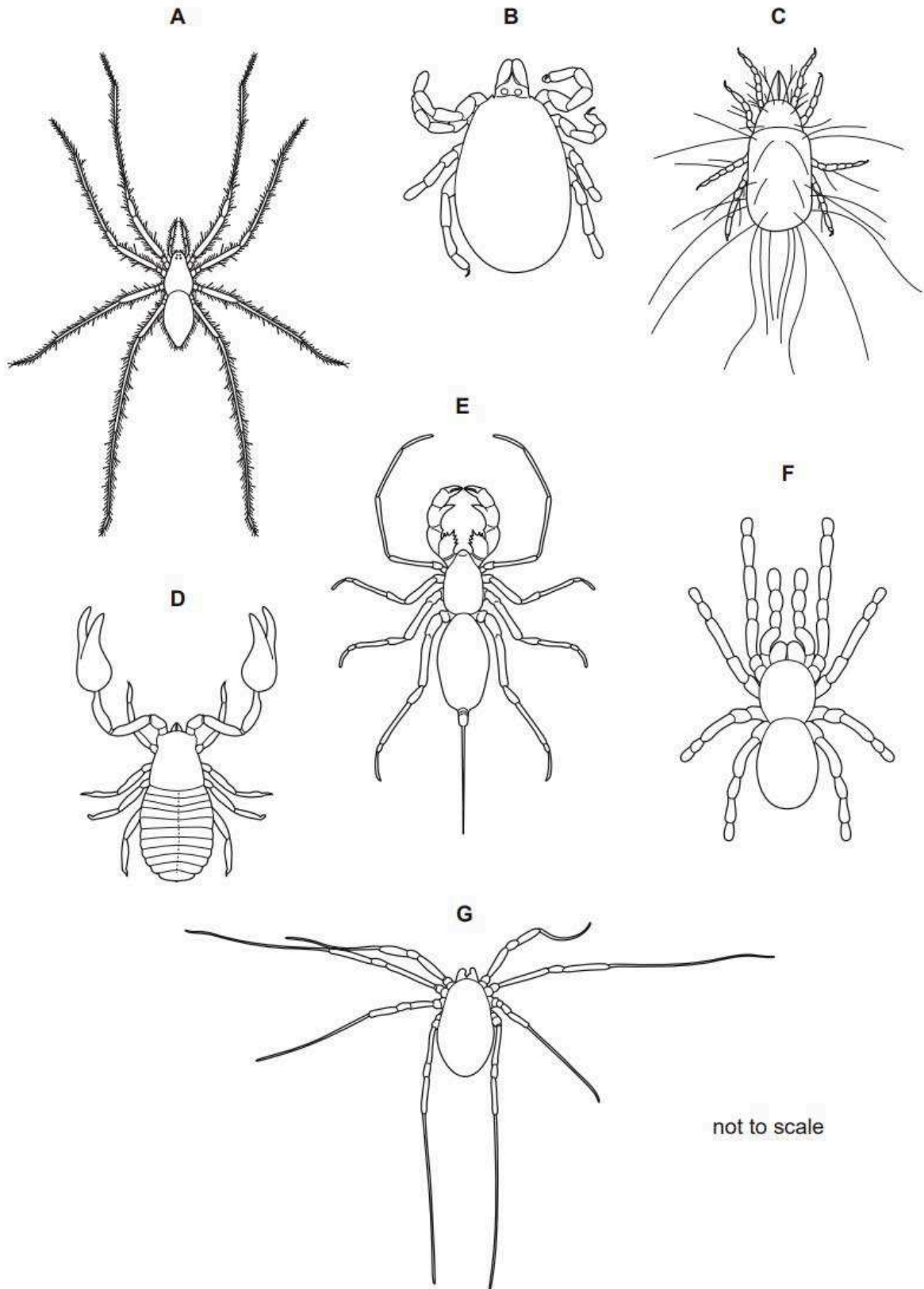


KEYS

KEYS: 1

Fig. shows seven species of arachnid.



not to scale

Use the key to identify each species. Write the letter of each species (**A** to **G**) in the correct box beside the key. One has been done for you.

Key

1 (a)	Abdomen with a tail	<i>Abaliella dicranotarsalis</i>	E
(b)	Abdomen without a tail	go to 2	
2 (a)	Legs much longer than abdomen and cephalothorax	go to 3	
(b)	Legs not much longer than abdomen and cephalothorax	go to 4	
3 (a)	Hairs on the legs	<i>Tegenaria domestica</i>	
(b)	No hairs on the legs	<i>Odielus spinosus</i>	
4 (a)	Cephalothorax or abdomen segmented	<i>Chelifer tuberculatus</i>	
(b)	Cephalothorax and abdomen not segmented	go to 5	
5 (a)	Abdomen and cephalothorax about the same size	<i>Poecilotheria regalis</i>	
(b)	Abdomen larger than cephalothorax	go to 6	
6 (a)	Body covered in long hairs	<i>Tyroglyphus longior</i>	
(b)	Body not covered in hairs	<i>Ixodes hexagonus</i>	

[4]

MARKING SCHEME:

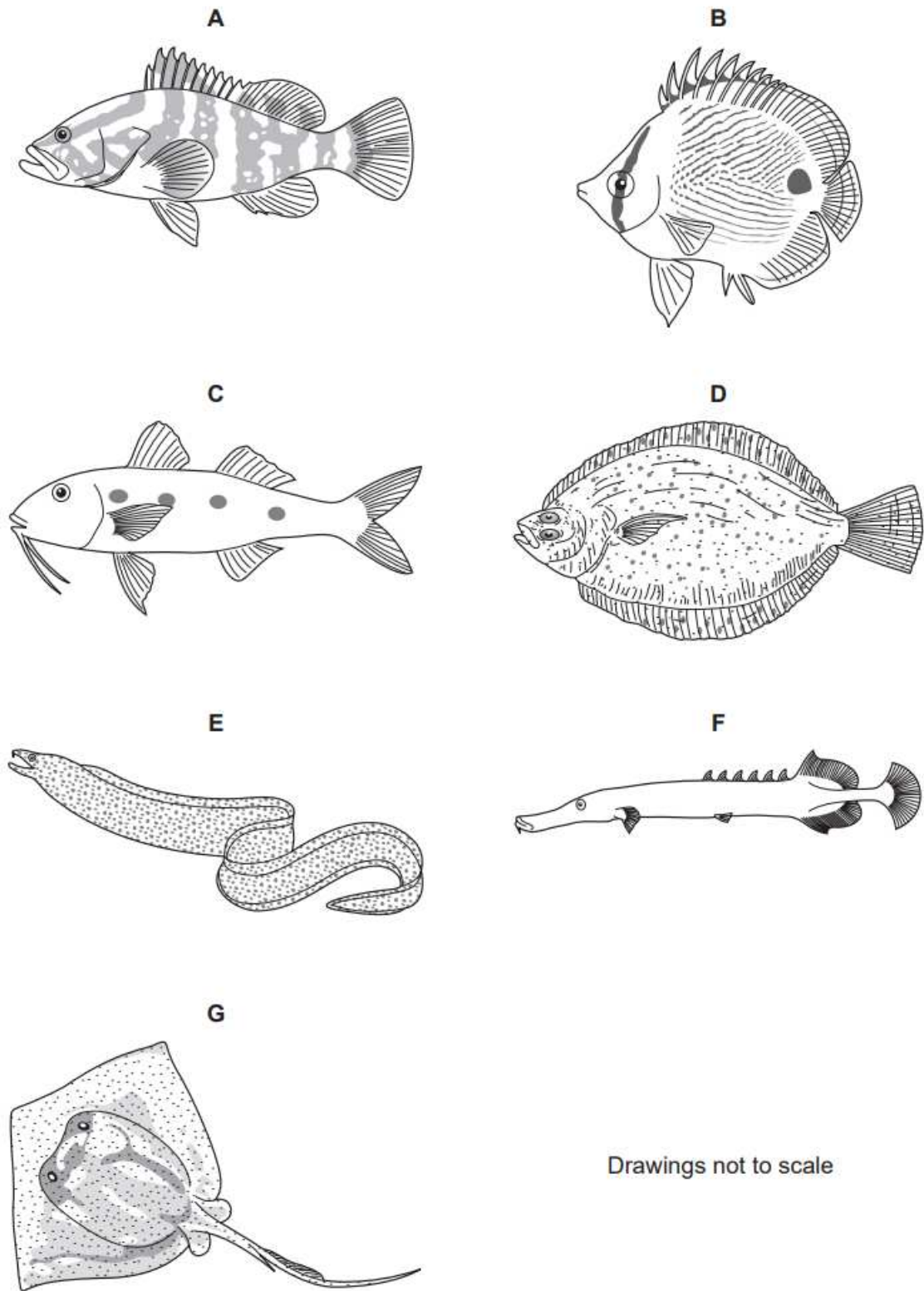
<p>5 / 6 RIGHT = 4 4 RIGHT = 3 3 RIGHT = 2 1 / 2 RIGHT = 1 0 RIGHT = 0</p>	<i>Abaliella dicranotarsalis</i>	E	4
	go to 2		
	go to 3		
	go to 4		
	<i>Tegenaria domestica</i>	A	
	<i>Odielus spinosus</i>	G	
	<i>Chelifer tuberculatus</i>	D	
	go to 5		
	<i>Poecilotheria regalis</i>	F	
	go to 6		
	<i>Tyroglyphus longior</i>	C	
	<i>Ixodes hexagonus</i>	B	

EXPERT SOLUTION:

The above question on keys can be answered only if you know your concepts well. So please learn them well to score full marks.

KEYS:2

(a) Fig. 1.1 shows seven species of fish that live on reefs in the Caribbean.



Drawings not to scale

Fig. 1.1

Use the key to identify each species. Write the letter of each species (A to G) in the correct box beside the key. One has been done for you.

Key

1 (a)	Body shape is long and narrow, at least 10 times as long as its depth	go to 2	
(b)	Body shape is not long and narrow, less than 10 times long as its depth	go to 3	
2 (a)	Fins are pointed	<i>Aulostomus maculatus</i>	F
(b)	Fins are smooth	<i>Gymnothorax moringa</i>	
3 (a)	Both eyes are on top of the head	go to 4	
(b)	Eyes are on either side of the head	go to 5	
4 (a)	Tail fin is long and thin	<i>Dasyatis americana</i>	
(b)	Tail fin is short	<i>Bothus ocellatus</i>	
5 (a)	Fish has one or several dark spots	go to 6	
(b)	Fish has no dark spots	<i>Epinephelus striatus</i>	
6 (a)	Fish has two fins on its back	<i>Pseudupeneus maculatus</i>	
(b)	Fish has more than two fins on its back	<i>Chaetodon capistratus</i>	

[4]

MARKING SCHEME:

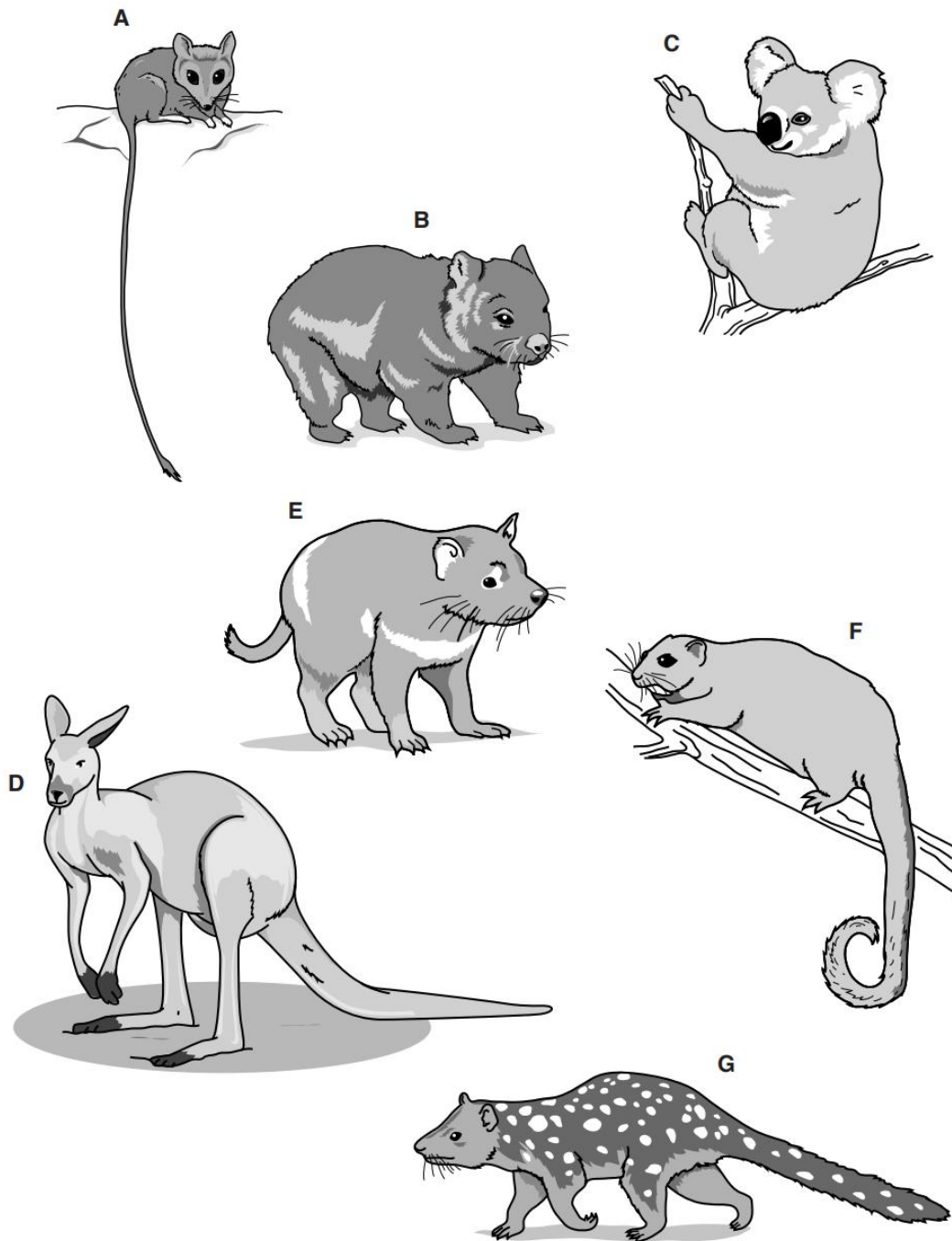
<p>(a)</p> <p>5 / 6 RIGHT = 4 4 RIGHT = 3 3 RIGHT = 2 1 / 2 RIGHT = 1</p> <p>0 RIGHT = 0</p>	go to 2		<p>sequence is:</p> <p>E G D A C B</p> <p>I letters placed in grey blocks</p>
	go to 3		
	<i>Aulostomus maculatus</i>	F	
	<i>Gymnothorax moringa</i>	E	
	go to 4		
	go to 5		
	<i>Dasyatis americana</i>	G	
	<i>Bothus ocellatus</i>	D	
	go to 6		
	<i>Epinephelus striatus</i>	A	
	<i>Pseudupeneus maculatus</i>	C	
	<i>Chaetodon capistratus</i>	B	

EXPERT SOLUTION:

The above question on keys can be answered only if you know your concepts well. So please learn them well to score full marks.

KEYS 3:

1 Fig. 1.1 shows seven marsupial mammals.



not drawn to scale

Fig. 1.1

- (a) (i) State **one** visible feature that could be used to identify the marsupials in Fig. 1.1 as mammals.

.....[1]

- (ii) Use the key to identify each species. Write the letter of each species (**A** to **G**) in the correct box beside the key. One has been done for you.

key

1	(a)	tail visible	go to 2	
	(b)	no tail visible	go to 3	
2	(a)	back feet at least twice as long as front feet	go to 4	
	(b)	back feet and front feet of similar length	go to 5	
3	(a)	large ears relative to the size of the head	<i>Phascolarctos cinereus</i>	
	(b)	small ears relative to the size of the head	<i>Vombatus ursinus</i>	
4	(a)	tail at least twice as long as body	<i>Sminthopsis longicaudata</i>	
	(b)	tail less than twice as long as body	<i>Macropus rufus</i>	
5	(a)	uniform body colouring	<i>Paljara tirarensis</i>	
	(b)	markings on body	go to 6	
6	(a)	white band across back and chest	<i>Sarcophilus harrisi</i>	
	(b)	no white band across back and chest	<i>Dasyurus maculatus</i>	G

[3]

MARKING SCHEME:

(a (i))	hair / fur / whiskers ; external ears / pinna(e) ; nose / snout ;	max [1]																									
(ii)	<table border="1"> <tr><td>go to 2</td><td></td></tr> <tr><td>go to 3</td><td></td></tr> <tr><td>go to 4</td><td></td></tr> <tr><td>go to 5</td><td></td></tr> <tr><td><i>Phascolarctos cinereus</i></td><td>C</td></tr> <tr><td><i>Vombatus ursinus</i></td><td>B</td></tr> <tr><td><i>Sminthopsis longicaudata</i></td><td>A</td></tr> <tr><td><i>Macropus rufus</i></td><td>D</td></tr> <tr><td><i>Paljara tirarensis</i></td><td>F</td></tr> <tr><td>go to 6</td><td></td></tr> <tr><td><i>Sarcophilus harrisii</i></td><td>E</td></tr> <tr><td><i>Dasyurus maculatus</i></td><td>G</td></tr> </table>	go to 2		go to 3		go to 4		go to 5		<i>Phascolarctos cinereus</i>	C	<i>Vombatus ursinus</i>	B	<i>Sminthopsis longicaudata</i>	A	<i>Macropus rufus</i>	D	<i>Paljara tirarensis</i>	F	go to 6		<i>Sarcophilus harrisii</i>	E	<i>Dasyurus maculatus</i>	G		[3]
go to 2																											
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go to 6																											
<i>Sarcophilus harrisii</i>	E																										
<i>Dasyurus maculatus</i>	G																										
			5 or 6 correct = 3 3 or 4 correct = 2 1 or 2 correct = 1																								

EXPERT SOLUTION:

The above question on keys can be answered only if you know your concepts well. So please learn them well to score full marks.