

Question	Scheme		Marks	AOs
2(a)		$0.75 - p$ or $1 - p$ Correctly placed	B1	1.1b
		Both $0.75 - p$ and $1 - p$ correctly placed	B1	1.1b
			(2)	
(b)	$p^2 = 0.2025$		M1	1.1b
	$p = \sqrt{0.2025} = 0.45$		A1	1.1b
			(2)	
(c)	$0.75 - p + p(1 - p)$ $0.3 + 0.45 \times 0.55$ or $1 - 0.25 - 0.2025$		M1	3.1b
	0.5475 o.e.		A1ft	1.1b
			(2)	
(d)	(Marketing Employee, Accounting Employee): (Distinction, Pass), (Distinction, Fail), (Pass, Fail)		M1	3.1b
	Summing three products with at least two correct from: $0.25 \times '0.5475' + 0.25 \times 0.2025 + '0.5475' \times 0.2025$ or both correct products: $0.25 \times (1 - 0.25) + '0.5475' \times 0.2025$		M1	3.4
	[$0.25 \times (1 - 0.25) + '0.5475' \times 0.2025 =$] awrt 0.298		A1	1.1b
			(3)	

(9 marks)			
Notes:			
(a)	B1: B1:	Either $0.75 - p$ or $1 - p$ correctly placed on tree diagram Both $0.75 - p$ and $1 - p$ correctly placed on tree diagram	
(b)	M1: A1:	$p^2 = 0.2025$ $p = 0.45$	
(c)	M1: A1ft:	Correct method for P(Pass) using their value of p (if p is used) 0.5475 (ft their p)	
(d)	M1: M1: A1:	For using or writing the correct combinations as (D, P) , (D, F) , (P, F) o.e. Three summed products with two correct products from (D, P) , (D, F) , (P, F) or summing both correct products from (D, D') , (P, F) awrt 0.298	