Question number	Answer	Notes	Marks
11 (a) i	normal drawn at G ;	by eye	1
ii	value for G; (45) value for D; (45)	tolerance ±2°	2
b	ray has been reflected; totally internally; because angle of incidence > critical angle;	allow 42 or 43°	3
С	correct refraction at G downwards; TIR on bottom surface; emergent ray parallel to and below DE; = 3 = MP1 only		3

Total 10 marks