



Kertas 1

	_
1. B	
2. A	
3. B	
4. C	
5. D	
6. A	
7. C	
8. D	
9. E	
10. C	
11. A	
12. D	
13. C	
14. C	
15. C	
16. C	
17. D	
18. C	
19. C	
20.	
21. C	
22. C	
23. D	

24. B25. A

26. C
27. B
28. A
29. B
30. A
31. C
32. C
33. A
34. B
35. B
36. D
37. C
38. A
39. D
40. D
41. B
42. D
43. C
44. A
45. A
46. B
47. D
48. D
49. A
50. A



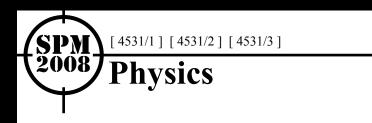




Kertas 2

Soalan	Butiran	Markah		
1 (a)	15 m			
(b)	Velocity//Speed			
(c)(i)	Constant // uniform velocity // uniform speed			
(c)(ii)	Stationary / not moving / stops			
2 (a)(i)	Zero error // systematic error			
(a)(ii)	24.0 s			
(b)(i)	T = 1.20s			
(b)(ii)	$\frac{10}{4(3.142)^2} \times (1.2)^2$ =0.3647 m			
3(a)	Convex mirror			
(b)	Upright/ diminished/ smaller/ virtual			
(c) (d)	 Draw parallel ray from the object that incident along a path parallel to the principle axis appears to go through the focal point. A radial ray that is incident through the centre of curvature, C of the curved mirror is reflected back along the incident path through point C Determine the correct position of the image To increase the field of vision. 			
4(a)	Transistor NPN			
(b)(i)	$I_{\rm B}+I_{\rm C}=I_{\rm E}$			
(b)(ii)	V2 = R2 6 R2 + 1500 R2 = 750 Ω			
(c)(i)	The bulb will not light up Resistance R2 is small			
(c)(ii)	Current amplifier			
	To +++ // I / I + I + I			
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Kertas 2

Soalan	Butiran	Markah	
5 (a)	Change in momentum		
(b)(i)	Force on the egg in diagram 5.2 is larger		
(b)(ii)	Time of impact for surface A is longer/vice versa		
(b)(iii)	The change in momentum is the same		
(b)(iv)	The time of impact is inversely proportional to the force produced in a collision		
(b)(v)	Sponge/ carpet/ towel/cloth/ grass or any other acceptable materials.		
(c)	The time taken during the impact is small The impulsive force produced on the pile during impact is large		
6 (a)	The current that is induced by electromagnetic inductions when the circuit is complete		
(b)(i)	X : North Y : South		
(b)(ii)	Diagram 6.1 bar magnet towards the solenoid Diagram 6.2 bar magnet away from the solenoid		
(c)(i)	Repulsive Attractive		
(d)	Increase the speed of bar magnet/ increase the number of turns of the solenoid/ use a stronger magnet.		
7 (a)	Logic gates are electronic switches with one or more inputs and one output		
(b)(i)			
(b)(ii)			
(b)(iii)	http://edu.joshuatly.com http://www.joshuatly.com		





[4531/1] [4531/2] [4531/3]

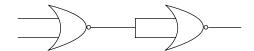
Physics



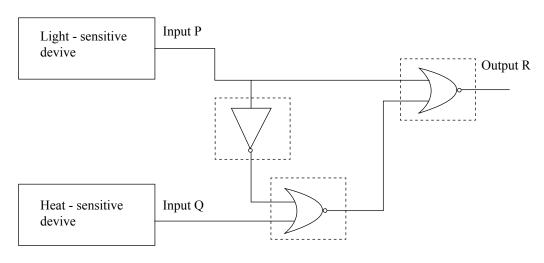
Soalan	Butiran				
(c)(i)	K	L	M		
	0	0	0		
	0	1	0		
	1	0	0		
	1	1	1		

(c)(ii) AND

(d)



(e)



(8)(a) Resultant force/net force is zero

(b)
$$W = mg = 60x10$$

= 600 N

(c)

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