

Mark schemes

1. A

$$-1.3 \times 10^7 \text{ C kg}^{-1}$$

[1]

2. D

$$W^+$$

[1]

3. A

$$\Lambda^0 + \pi^-$$

[1]

4. B

$$1.2 \times 10^{-14} \text{ m}$$

[1]

5. D

repulsive attractive negligible

[1]

6. C

$$p + e^- + \bar{\nu}_e$$

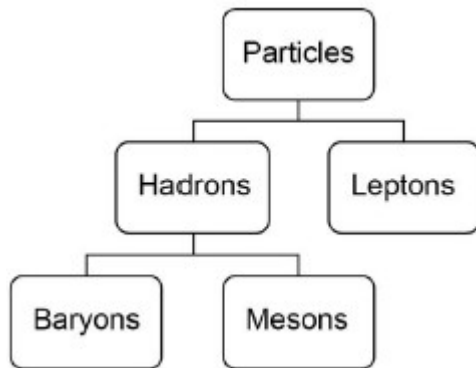
[1]

7. C

using monochromatic light of higher frequency

[1]

8. A



[1]

9. A

A	μ^+	✓	✓	
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[1]

10. A

$$\alpha + \beta^- + \beta^- + \alpha + \alpha$$

[1]

11. A

up quark down quark neutrino

[1]

12. B

It has a charge of $-1.6 \times 10^{-19} \text{ C}$.

[1]

13. A

[1]

14. C

[1]

15. B

[1]

16. D

[1]

17. B

[1]

18. B

[1]

19. B

[1]

20. D

[1]

21. A

[1]

22. B

[1]

23. C

[1]

24. B

[1]

25. C

[1]

26.

C

[1]

27.

A

[1]

28.

B

[1]

29.

A

[1]

30.

C

[1]

31.

A

[1]

32.

B

[1]