## Mark schemes

1. B
above MN by 0.20 m
2. $B$

> third
3. D

The frequency is 0.17 Hz .
4. A $\boldsymbol{P}$ is in antiphase with $\boldsymbol{R} \quad \boldsymbol{P}$ has the same amplitude as $\boldsymbol{Q}$
5. D
6. A
7. A
8. C
9. A
10. D
11. B
13. D
14. A
15. D
16. A
17. B
18. C
19. A

