Questions

1. Which of the following statements correctly describes one of the general requirements about the operation of single-engine Class B aeroplanes in the public transport category?

a. They may fly at night
b. They must be flown so that an airfield can be reached following engine failure
c. They are not to operate in IMC, except under special VFR
d. They must not be operated over water

2. According to the information in a light aircraft manual, which gives two power-settings for cruise, 65% and 75%, if you fly at 75% instead of 65%:

a. cruise speed will be higher and SFC will be the same
b. cruise speed will be higher and SFC will be lower
c. cruise speed will be higher and SFC will be higher
d. cruise speed will be the same and SFC will be the same

3. According to the information in a light aircraft manual, which gives two power settings for cruise, 65% and 75%, if you fly at 65% instead of 75%:

a. endurance will be higher and SFC will be the same
b. endurance will be higher and SFC will be lower
c. endurance will be higher and SFC will be higher
d. endurance will be the same and SFC will be the same

4. For the purpose of ensuring compliance with the en route regulations, up to what maximum altitude is the aeroplane assumed to operate?

a. The altitude where the rate of climb falls to 300 ft/min with maximum continuous power set
b. With maximum take-off power set, the altitude where the rate of climb exceeds 300 ft/min
c. With maximum continuous power set, the altitude where the rate of climb exceeds 300 ft/min
d. The altitude where the rate of climb increases to 300 ft/min with maximum take-off power set

5. For the purpose of ensuring compliance with the en route regulations, the en route descent gradient must be:

a. the gross gradient of descent decreased by 0.5%
b. the net gradient of descent decreased by 0.5%
c. the gross gradient of descent increased by 0.5%
d. 0.5%

6. To ensure a piston engine Class B aeroplane can glide the furthest distance following engine failure, what speed must be flown?

a. V_{MP}
b. $1.32V_{MD}$
c. $0.76V_{MD}$
d. V_{MD}

7. Following engine failure, to maximize the descent range of a small piston engine aeroplane the aeroplane must be flown at:

a. the speed for the maximum lift over drag ratio
b. V_{MP}
c. the speed for minimum lift over drag ratio
d. a speed equal to the aeroplane's best angle of climb