〔令5〕

物理解答用紙

受験番号	

1

問1 $Ma = F - S - Mg$

問2 $ma = S - mg$

問3 $a = \dfrac{F}{M+m} - g$

問4 $a' = \dfrac{F}{M} - g$

問5 $t = \sqrt{\dfrac{2Mh}{F}}$

2

問1

(1) $p = n_A \dfrac{RT}{V}$

(2) $n_B = n_A$

(3) $U_0 = \dfrac{3}{2} RT(n_B + 2n_C)$

問2

(4) $2T$

(5) $U_1 = 15 n_A RT$

(6) ③

(7) $n_C = 5 n_A$

3

問1

(1) $0.7\,V$

(2) $0.0049\,W$

(3) 0

(4) 0

問2.

(5) ③

(6) ②

問3

(7) $10\,mA$

(8) $20\,mA$

4

問1

(1) $2\pi(f_c + f)t$

(2) $2\pi(f_c - f)t$

(3) 7500

(4) $4\pi f_c t$

(5) $4\pi f_c t$

(6) $\frac{1}{2}Q(t) + \frac{1}{2}I(t)\sin(4\pi f_c t) - \frac{1}{2}Q(t)\cos(4\pi f_c t)$

(7) 300

(8) $2\pi \dfrac{d}{\lambda}\sin\theta$

(9) 干渉波の波長

(10) 大きい

問2

(a) (ウ)

1		2		3		4		合計	