1. If £1 = 2.80 dollars = 979 francs,
   (i) express £46 18s. 6d. in dollars;
   (ii) express £46 18s. 6d. in francs, correct to the nearest franc;
   (iii) express 629 dollars in francs, correct to the nearest franc.

2. Find the value of
   \[
   \frac{(0.768)^2 \times \sqrt{34.6}}{(1.12)^3}
   \]
correct to two significant figures.

3. A man invested £4,200 in 5% Stock at 105 and £2,450 in 4% Stock at 98. Find his total income from these investments. What sum of money invested in 3\frac{1}{2}% Stock at 78 would give the same income?

4. If income tax is calculated at the rate of 3s. in the £1 on the first £100 of taxable income, at 6s. in the £1 on the second £100 of taxable income, and at 7s. 6d. in the £1 on the remainder of the taxable income,
   (i) how much income tax is payable when the taxable income amounts to £280?
   (ii) What does the taxable income amount to if the income tax is £33?

5. (i) Find, correct to the nearest pound, the Compound Interest on £300 for 5 years at 2% per annum.
   (ii) A Savings Certificate bought for £1 is worth £1 10s. at the end of 12 years. What rate of Compound Interest would give the same increase in the same time?
6. A merchant buys two types of tea, type A at 4s. 6d. per lb. and type B at 5s. 4d. per lb. Find the percentage profit which he makes if he mixes them in the ratio of 2 lbs. of type A to 3 lbs. of type B and sells the mixture at 6s. per lb.

In what proportion should he mix the two types of tea so that he would make a profit of 12¼% by selling the mixture at 5s. 3d. per lb? [30 marks.]

7. A cylindrical tank contains 28 gallons of water when it is filled to a depth of 15 inches. Find the internal diameter of the tank, correct to the nearest inch.

When a metal sphere is totally immersed in the water, the level of the water is raised by 2 inches. Find the radius of the sphere, correct to the nearest inch. [See Tables, p. 33.] [30 marks.]