**Problem 3**

RF = 

Maximum length to be measured = 9.8 dam => Length of scale = 

Mark on scale: 2.2 dam = 1.4 dam + 8 m

**2.2 dam**

**8**

**0**

**14**

**METERS**

**DECAMETERS**

**8.4**

**7.0**

**5.6**

**4.2**

**2.8**

**1.4**

**0**

**RF = 1/700**PLANE SCALE SHOWING DECAMETERS AND METERS

**Problem 4**

85

25

25

70

Φ40

Φ20

50

25

25

15

25

20

50

20

40

**Problem 5**

RF = 1/50000  
Maximum length to be measured = 4 km => Length of scale =   
LC of main scale = 0.1 km

Forward Vernier: 9 MSD = 10 VSD => 1 VSD = 0.09 km = 9 dam

Mark on scale: 1.19 km = 1.1 km + 0.09 km (i.e. 11 MSD + 1 VSD)

**1.19 km**

**DECAMETERS**

**0**

**90**

**45**

**HECTOMETERS**

**4**

**0**

**10**

**2**

**3**

**5**

**RF = 1/50000**VERNIER SCALE SHOWING KILOMETERS, DECAMETERS AND HECTOMETERS

**KILOMETERS**