O5. (10 points)

Solution:

F * tan (FOV/2) = f * tan(45°/2)

F = 700mm, f = 26mm

FOV/2 = Arctan (0.414 * f/F) = 0.881°

FOV = 2 * 0.881° = 1.76° ≈ 1.8°

10 points for 1.6° ~ 1.9°, 5 points for 1.3° ~ 1.5° and 2.0° ~ 2.2°

O6. (40 points)

Solution:

2 planets: Saturn, Jupiter.

2 Messier object: M15, M74.

1 equatorial coordinate: +30° 21h.

8 points for each text.