MARKING SCHEME for Observational_part1 – Planetarium (50 points)

Question1 (20 points)

- **a.** First arc length – length **– MERIDIAN 10º - 1p+2p**
  Second arc segment length **– EQUATOR 15º - 1p+2p**
- **b.** $\theta_{sidereal}$ – **13h30m 6p**
  +/- 15 m – full points; +/- 30 m half points
- **c.** Month number – **June (6) - 8p**

Question 2 (15 points)

1st Messier object	M101 **2p**	Number which indicates the type	1 **1p**	IAU abbreviation of the constellation	UMa **2p**
2nd Messier object	M57 **2p**	Number which indicates the type	2 **1p**	IAU abbreviation of the constellation	Lyr **2p**
3rd Messier object	M92 **2p**	Number which indicates the type	4 **1p**	IAU abbreviation of the constellation	Her **2p**

Question 3 (15 points)

1st Star	β UMi / Kochab **2p**	Number which indicates the type	1 **1p**	IAU abbreviation of the constellation	UMi **2p**
2nd Star	γ Leo / Algieba **2p**	Number which indicates the type	2 **1p**	IAU abbreviation of the constellation	Leo **2p**
3rd Star	α CVn / Cor Caroli **2p**	Number which indicates the type	2 **1p**	IAU abbreviation of the constellation	CVn **2p**

MARKING SCHEME for Observational part2 – Chart (50 points)

Question 1 – **2p**

Question 2 – **8p** (2p for each line (2p x 4 = 8p))

Question 3 – **9p** (0.5p for each cardinal point (0.5p x 4 = 2p); 1.4p for each planet (1.4p x 5 = 7p))

Question 4 – **4p** (each star name 0.5p + at correct position in the list 0.5p)

Marking on the map	1	Name of the star	α Boo (Arcturus)
	2	Name of the star	α Lyr (Vega)
	3	Name of the star	α Aur (Capella)
	4	Name of the star	α Aql (Altair)

Question 5 – **6p** (0.4 p for each constellation (15 constellations))

Question 6 – **5p** (each object 1p)

Question 7 – **10p** (18h; +/-15m full points; +/- 30m half points)

Question 8 – **6p** (Ascension – 20h+/-1h - 3p; Declination – +10°+/-5° – 3p)