MyAO Finals 2022: Map & Images Round

There are 3 problems. Each problem is worth 10 points. Problems are not sorted by difficulty.

1 Question 1

- (a) For each of the diagrams below, give the name of the constellation.
 - (i)



(ii)





(iv)



(v)

(iii)



(vi)



(vii)







- (b) For each of the pictures below, give the name of the astronomical object.
 - (i)



(ii)



(iii)



(iv)



(v)



(vi)



(vii)



2 Question 2

Picture shows a star cluster in the night sky. List the stars from brightest to dimmest, as seen from Earth. You do not need to provide their names.



3 Question 3

Answer the following questions based on the star chart below. The star chart is a all-sky view at an undisclosed location at an undisclosed date. The sky is partitioned into 18 sections.



- (a) Give the number of the section that is in the direction of southwest.
- (b) There is a very bright star in section 18 circled in blue. What constellation does it belong to? You can write the full name or IAU abbreviation of the constellation.
- (c) There is a very bright star in section 7 circled in red. What constellation does it belong to? You can write the full name or IAU abbreviation of the constellation.
- (d) Which two sections does the ecliptic line meet the horizon? For this question, full marks are awarded if your section is either the correct one or the one right beside it.
- (e) Name the constellation at the centre of the picture. You can write the full name or IAU abbreviation of the constellation.
- (f) Write down any 2 constellations that are partially or fully inside section 3. You can write the full name or IAU abbreviation of the constellation.
- (g) Write down any one constellation that is partially or fully inside section 11. You can write the full name or IAU abbreviation of the constellation.
- (h) Estimate the latitude where this star chart is made for. Include the symbol N if it is in the northern hemisphere and S if it is in the southern hemisphere. For this question, full marks are awarded if your estimation is within 10 degrees of the correct answer.
- (i) One of the galactic poles is in the star chart. Give the number of the section that has the galactic pole.
- (j) This star chart is made for 10pm. Estimate the month of this star chart.