

Annual Examinations for Secondary Schools 2022

YEAR 9	GRAPHICAL COMMUNICATION	MARKING SCHEME
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Question No. 1

Geometry

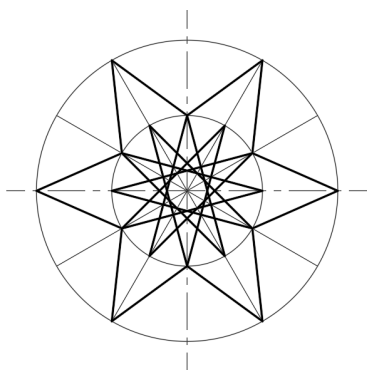
Drawing the two circles R25 and R50	2
Dividing the circles into 12 equal parts	2
Drawing the first part of the design as shown in stage (ii)	3
Completing the pattern as shown in stage (iii)	3
Outlining the star design	1
Precision and neatness	1
Total marks for question No. 1	12

Question No. 2

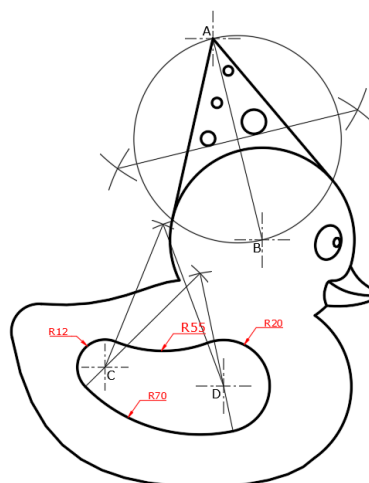
Circles in contact

Joining point A to centre B	1
Bisecting line AB and drawing two semi-circles	2
Drawing the two tangents from point A to ARC centre B	1
Drawing the two circles R12 and R20 using centres C & D	2
Finding by construction the centre of arc R55 (R12+R55 & R20+R55)	4
Drawing the arc R55 touching the two circles	1
Finding by construction the centre of arc R70 (R70-R12 & R70-R20)	4
Drawing the arc R70 touching the two circles	1
Precision and neatness	2
Total marks for question No. 2	18

Question No. 1



Question No. 2



Question No. 3

Cabinet Oblique projection

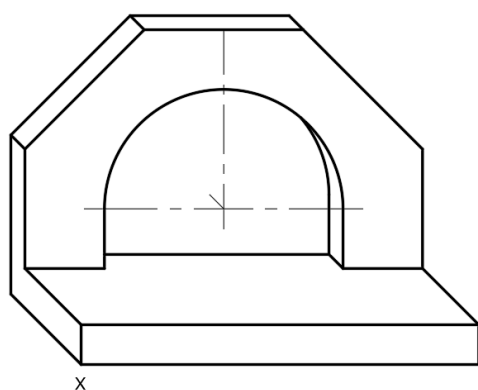
Completing the front rectangular face using corner X (100X10)	1
Drawing the half-depth on the left side L-shape (25mm depth)	2
Constructing the flat top of the base (100X20mm)	1
Constructing the vertical plate and the chamfers (30X30) including the chamfers	4
Drawing the circle R 30 on the given centre line using the compasses	2
Constructing the depth of the semi-circular hole (5mm)	2
Outlining the drawing	1
Accuracy and neatness	2
Total marks for question No. 3	15

Question No. 4

Orthographic projection and isometric drawing

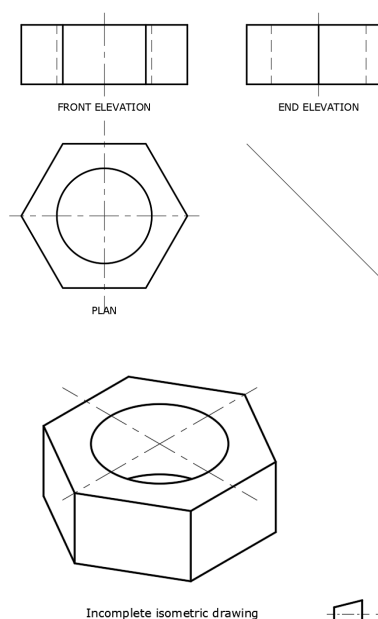
Drawing the hexagon in the plan of sides 35mm	4
Constructing by projection, the end elevation.	2
Projecting and draw the hidden lines in the end elevation	2
Label the type of orthographic projection (1 st angle)	2
Dividing the circle in the plan (R20mm) in a number of parts	1
Marking and transferring the points on the isometric centre lines	3
Drawing the isometric circle as smooth as possible	2
Projecting the depth and drawing the small visible isometric arc at the bottom.	2
Total marks for question No. 4	18

Question No. 3

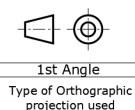


Cabinet oblique drawing

Question No. 4



Incomplete isometric drawing



Type of Orthographic projection used

Question No. 5

Polar enlargement

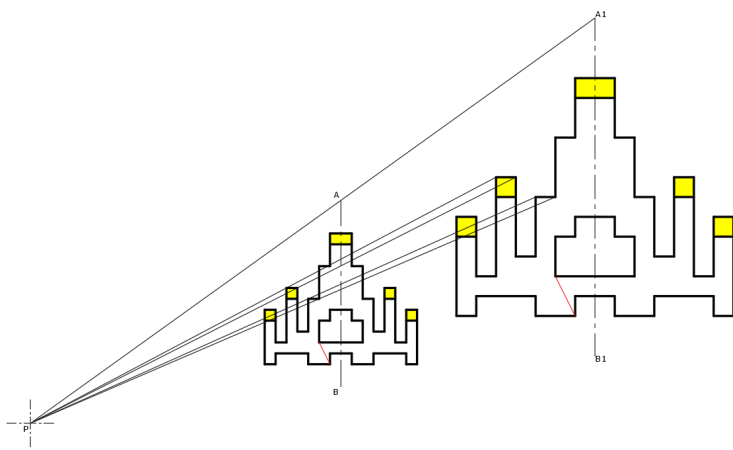
Projecting radial lines from polar point P through the smaller profile to the larger profile	2
Completing the left side of the profile	6
Constructing the floating windshield of the spaceship (students can also use the centre line to start the floating windshield)	4
Mirroring the left design on the right using the mirror centre line	3
Precision and neatness	2
Total marks for question No. 5	17

Question No. 6

Developments

Projecting and constructing the end elevation	4
Projecting perpendicular lines to the cut on the front	2
Constructing the true shape of the truncation using the centre line as the line of symmetry (30X80mm)	4
Projecting and outlining the straight-line development of the box	4
Adding the plan and the true shape to the development (different layouts accepted)	4
Drawing fold lines where applicable	2
Total marks for question No. 6	20

Question No. 5



Question No. 6

