DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION
Department for Curriculum Management and eLearning
Educational Assessment Unit
Annual Examinations for Secondary Schools 2010

Tra

FORM 3 (3rd Year) GRAPHICAL COMMUNICATION TIME: 2 hours

Instructions

- Write your name and class on all sheets.
- Attempt ALL questions.
- All answers are to be drawn accurately, with instruments, unless otherwise stated.
- All construction lines MUST be left on each solution to show the method employed.
- Drawing aids may be used.

Information

- All dimensions are in millimetres.
- Estimate any missing dimensions not given.
- Marks will be awarded for accuracy, clarity and appropriateness of construction.

NAME _____ **CLASS** _____

Question	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Max. mark	**30**	**16**	**14**	**12**	**14**	**14**	**100**

Question 1. An Isometric View and an End Elevation of a DESK ORGANIZER are given. In the space provided and where indicated draw :

a) the Front Elevation

b) the Plan

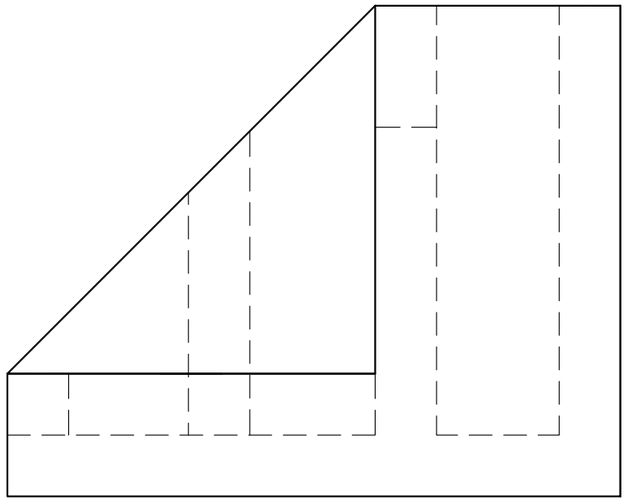
c) the symbol of the projection used

d) the scale used

Notes:

- *Material thickness is 10mm throughout.*
- *The three holes have a square base.*
- *Hidden details **<u>are not</u>** required.*

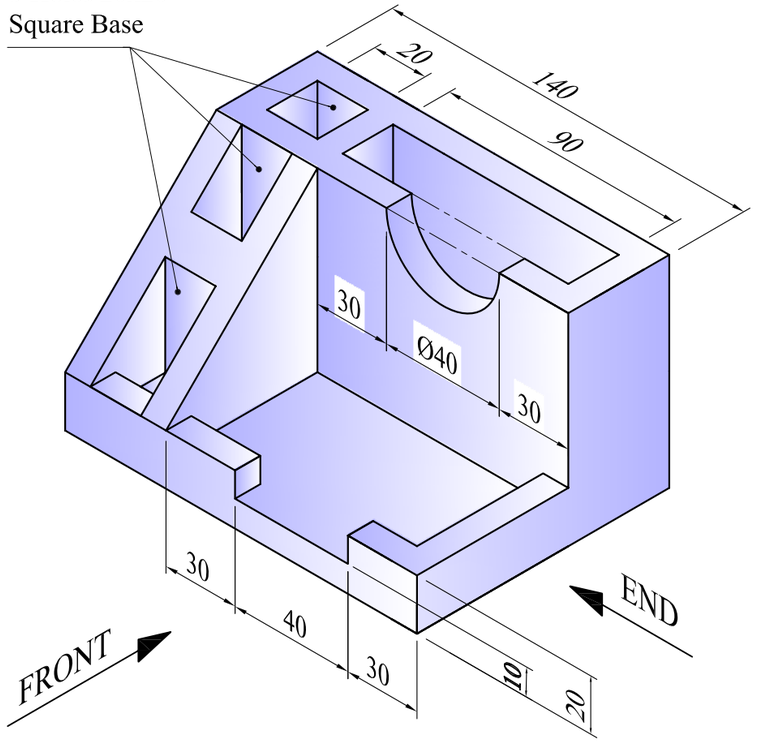
30 marks



End Elevation

Front Elevation

3 Holes 20x20
Square Base



Plan

Projection Symbol

Scale :

Sheet 1 of 4

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GRAPHICAL COMMUNICATION

Class:

Question 2. The logo shown in figure (i) is based on the construction of a regular pentagon. The mid-points of each side of the polygon are the centres of arcs R40 and R25.

Using the given line as the base:

a) construct geometrically the pentagon.

b) draw the necessary arcs and complete the logo.

Note: Shade only the upper part of the logo as shown in figure (ii) .

16 marks

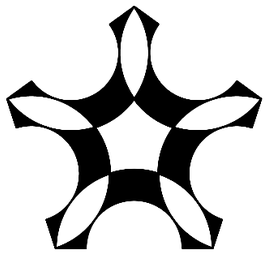


Figure (i)

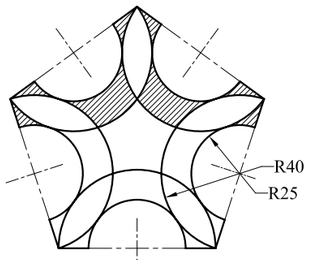
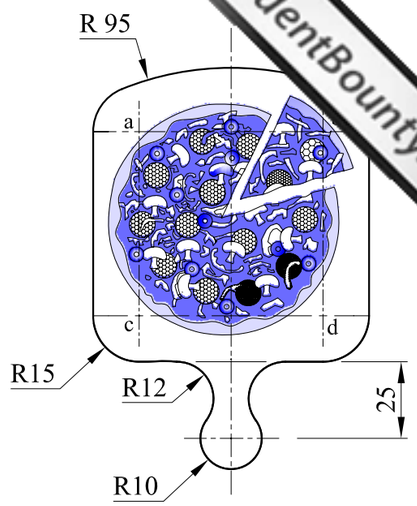


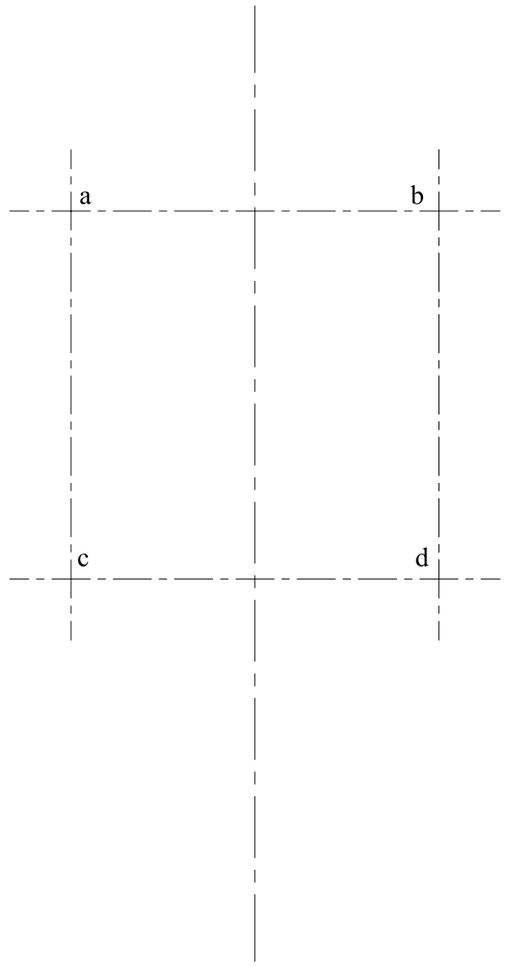
Figure (ii)

Question 3. The figure shows a wooden pizza peel which is used to handle the pizza before and after being cooked. Using the given start lines, draw the profile of the peel, showing clearly the constructions used to locate centres and points of tangencies.

Note: Centres of 15mm arcs a,b,c and d are given.

14 marks





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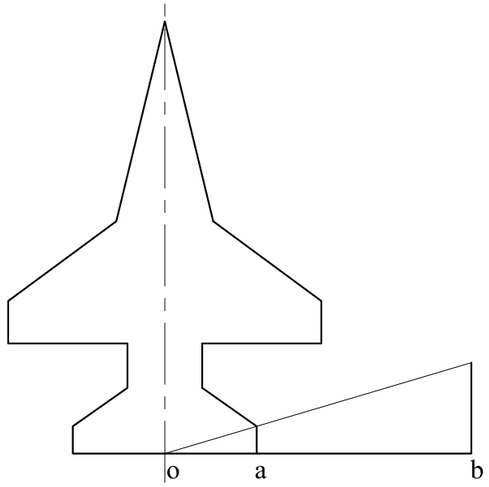
Question 4. Using the radial line method, enlarge the Jet plane profile given below such that side **oa** increases to **ob**.

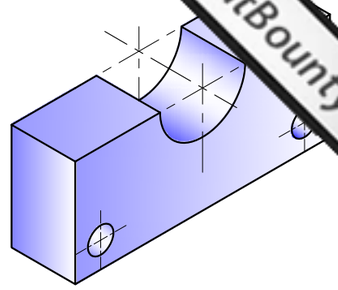
*Note: Use '**o**' as the pole.*

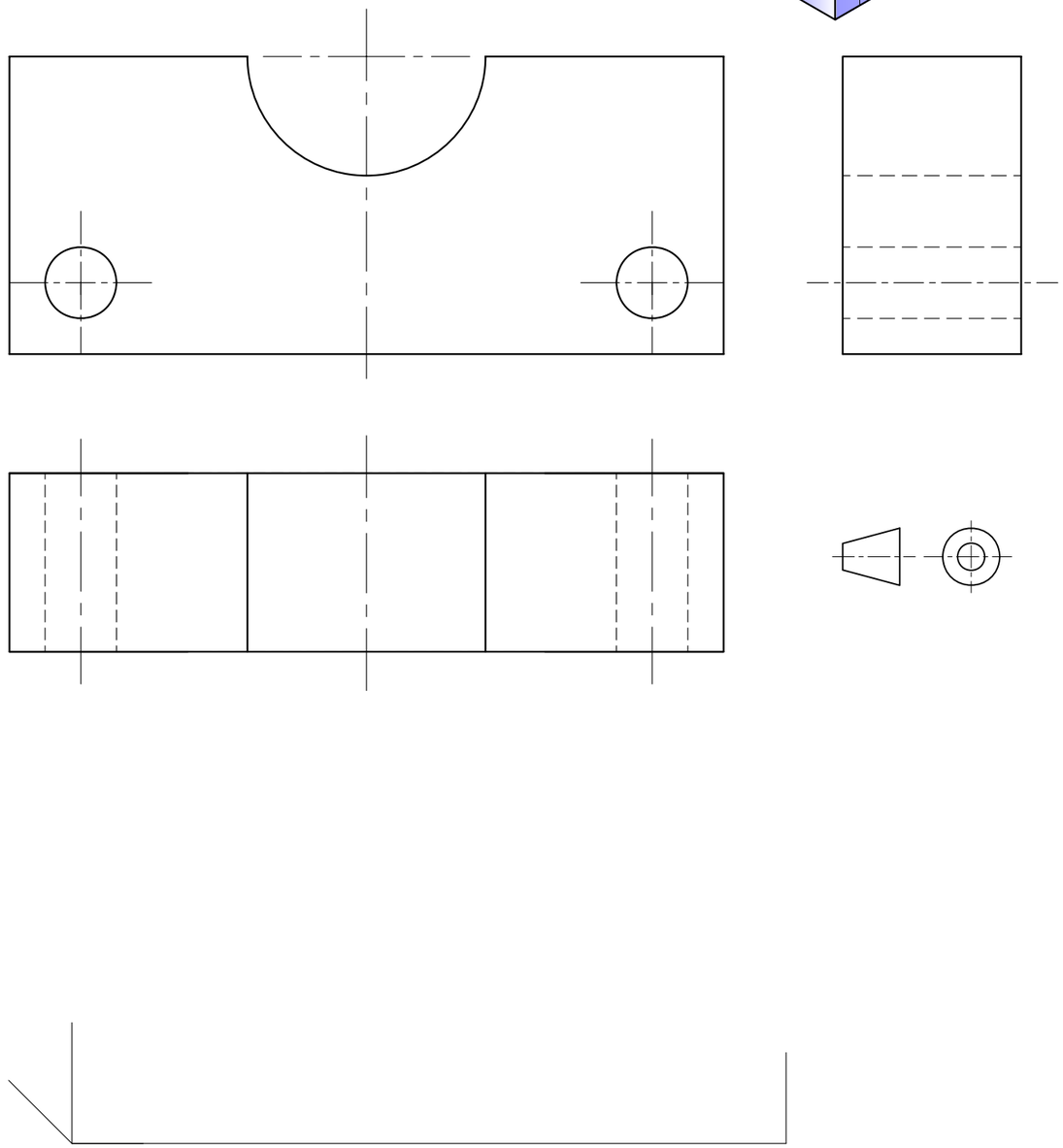
12 marks



Question 5. An isometric view and a full size orthographic projection of a bracket are given. In the space provided below and on the given start lines, draw a cabinet oblique view of the object.

14 marks





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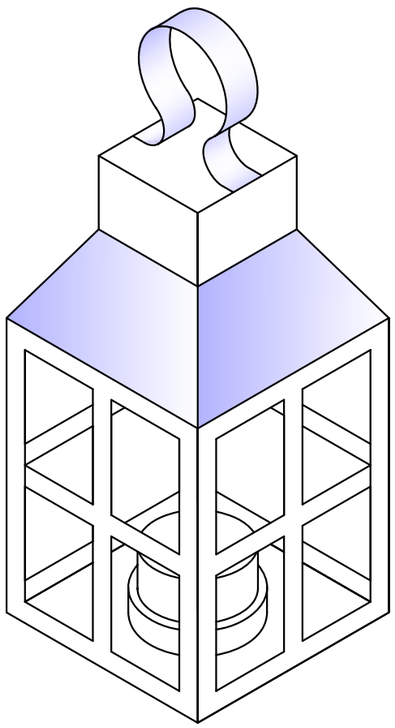
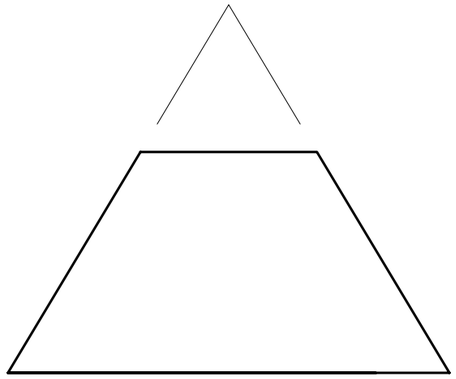
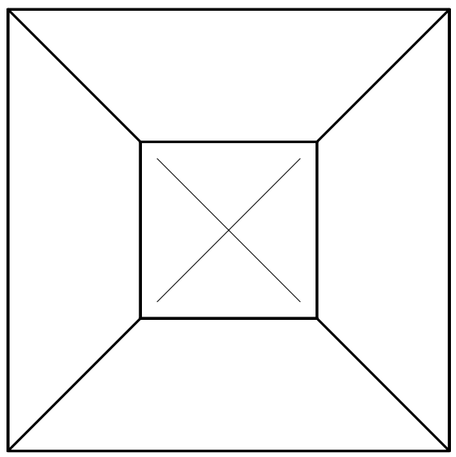
Question 6. A thin sheet metal model of a lantern is shown below. The front elevation and the plan of the cut square pyramid (which forms part of the lantern) are also given. Using the given space, draw the surface development of the pyramid.

14 marks



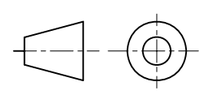


FRONT ELEVATION



PLAN

SURFACE DEVELOPMENT OF PYRAMID



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Class: