



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Examination 2009

Design and Communication Graphics

Student Assignment

Ordinary Level and Higher Level
160 marks

Details of the Student Assignment for the Leaving Certificate Examination 2009 are given overleaf.

The Student Assignment must be completed by Friday 27 February 2009.

Design and Communication Graphics (DCG) Student Assignment Leaving Certificate 2009

Instructions to candidates:

1. The coursework submitted for assessment must consist of two components:
 - A bound A3 design portfolio
 - The portfolio should contain a maximum of 12 pages at Ordinary Level and a maximum of 14 pages at Higher Level.
 - An individual CD containing:
 - All of the SolidWorks files relating to the completed assignment
 - An electronic copy of the completed portfolio.

(The electronic copy of the completed portfolio should be presented in PDF format. The electronic copy should contain the same number of pages as the design portfolio. An A3 scanner or digital camera should be used to generate the electronic images).*
2. The CD must contain 1 main folder. The name of this folder should contain your candidate examination number in the following format “DCG SA 2008 (Exam number)”.
3. The main folder, referred to above, must contain 2 sub-folders. One of these sub-folders will contain all the pages from the completed assignment in PDF* format. The other sub-folder must contain 2 sub-folders. One of these sub-folders will contain all of the SolidWorks electronic files associated with Part A of the assignment and the second subfolder will contain all of the SolidWorks electronic files associated with Part B of the assignment. No other files should be included on the CD.
4. For protection during transit, the CD should be placed in a protective plastic sleeve and fixed to the inside cover of the design portfolio.
5. All coursework submitted for assessment must be clearly identified with your examination number.
6. The coursework submitted for assessment must be **your own individual work** and must be **completed in school** under the supervision of the class teacher.
7. When using research sources, including the Internet, the sources must be acknowledged. Research material copied directly from the Internet or from other sources and presented as your own work will not receive any marks.
8. The coursework presented for assessment must be displayed in an attractive manner and marks will be awarded for presentation.
9. The coursework must be available for assessment by **Friday 27th February 2009**.

* *If your school does not have the necessary software to convert to PDF format, it is also acceptable, for 2009, to submit the material in JPEG format.*

Ordinary Level Student Assignment - Leaving Certificate 2009:

Remote control units are to be found in most homes. They allow users to operate a variety of audio-visual equipment.

Many of these remote controls have features such as an LCD screen, button/touch-screen operated controls, universal function, battery compartment, etc.

(A) Carry out a design investigation of the physical form and features of existing remote controls.

and

(B) Show graphically the modifications which you would make to an existing remote control to improve its overall design.

or

Develop and graphically communicate a new concept design for a remote control.

The submitted assignment should follow the structure outlined in the marking scheme below.

Student Assignment - Ordinary Level

	No.	Section Heading	Description	Suggested no. of A3 Pages	Marks	
Marks for thought process, reflection and presentation will be allocated under all appropriate headings.	Part (A) - Existing Artefacts	1	Design Research	Exploration of brief and presentation of existing artefacts in graphic format.	1-2	50
		2	Design Feature Comparison	Select 2 images and illustrate/explain the main design features. Insert the main dimensions. Compare and contrast the main design features of both using suitable freehand sketches and other presentation techniques.	1-2	
		3	Freehand Graphical Representation	Choose one of the artefacts and make a detailed graphical presentation of this artefact. This should include a rendered freehand presentation quality drawing in 3D format.	1	
		4	SolidWorks Parts, Assembly and eDrawing	Generate a detailed computer model, comprising at least 3 parts, an Assembly and and eDrawing of the selected artefact.	Electronic SolidWorks files on CD	60
		5	Hardcopy output from Solidworks	Detailed orthographic views Rendered pictorial view Exploded View	1-3	
		6	Photorealistic Image	Produce a photorealistic computer generated image of the artefact	1	
Part (B) Design Modification or Concept Design	7	Graphical exploration of design solutions	Analysis of brief and graphical illustration of possible solutions Justification for chosen solution(s)	1-2	50	
	8	Presentation of Modification/ Concept Design	Detailed graphical presentation of the design Modification/Concept Design. This should include a rendered freehand presentation quality drawing in 3D format.	1		
	9	Hardcopy output from Solidworks	CAD Model and associated hardcopy outputs	1-3 (Plus Electronic SolidWorks files on CD)		
				Total	160	

Higher Level Student Assignment - Leaving Certificate 2009

Docking stations are becoming increasingly popular with young people who wish to share the music collection on their personal MP3 players with friends.

Many docking stations have features such as a charging facility, in-built speakers, independent volume control, etc.

(A) Carry out a design investigation of the physical form and features of existing MP3 player docking stations.

and

(B) Show graphically the modifications which you would make to an existing docking station to improve its overall design.

or

Develop and graphically communicate a new concept design for a docking station.

The submitted assignment should follow the structure outlined in the marking scheme below.

Student Assignment - Higher Level

	No.	Section Heading	Description	Suggested no. of A3 Pages	Marks	
Marks for thought process, reflection and presentation will be allocated under all appropriate headings.	Part (A) - Existing Artefacts	1	Design Research	Exploration of brief and presentation of existing artefacts in graphic format.	1-2	50
		2	Design Feature Comparison	Select 2 images and illustrate/explain the main design features. Insert the main dimensions. Compare and contrast the main design features of both using suitable freehand sketches and other presentation techniques.	2-3	
		3	Freehand Graphical Representation	Choose one of the artefacts and make a detailed graphical presentation of this artefact. This should include a rendered freehand presentation quality drawing in 3D format.	1	
		4	SolidWorks Parts, Assembly and eDrawing	Generate a detailed computer model, comprising at least 5 parts, an Assembly and an eDrawing of the selected artefact. Economy of design and design intent will be considered in the marking of the assignment.	Electronic SolidWorks files on CD	50
		5	Hardcopy output from Solidworks	Detailed orthographic views Rendered pictorial view Exploded View	2-4	
		6	Photorealistic Image	Produce a photorealistic computer generated image of the artefact	1	
Marks for thought process, reflection and presentation will be allocated under all appropriate headings.	Part (B) Design Modification or Concept Design	7	Graphical exploration of design solutions	Analysis of brief and graphical illustration of possible solutions. Justification for chosen solution(s) including aesthetics, functionality and environmental sustainability	2-4	60
		8	Presentation of Modification/Concept Design	Detailed graphical presentation of the design Modification/Concept Design. This should include a rendered freehand presentation quality drawing in 3D format.	1	
		9	Hardcopy output from Solidworks	CAD Model and associated hardcopy outputs	2-4 (Plus Electronic SolidWorks files on CD)	
				Total	160	