Coimisiún na Scrúduithe State Examinations Commission

Leaving Certificate Applied, 2017

Vocational Specialism – Information and Communication Technology

Practical Performance and Written Test

Specialist Teacher Instructions

General Instructions

1.   The preparation and handling of all examination-related material must be regarded as strictly confidential.

2.   Each candidate should be provided with an individually labelled external storage device (e.g. floppy disk, memory stick, etc.) containing the relevant files only.

3.   Candidates should save their files on their individual external storage device. These should be retained in a secure place until after the appeals process.

4.   If the number of candidates requires that the examination be run over more than one session, hard drives should be checked to ensure that no previous candidate's saved work is present. If such work is found, it must be deleted. Any such saved work must also be deleted at the end of the examination.

5.   Printing may be done during the examination. Candidates are allowed to make only one test printout within the time limit.

6.   When printing outside the time limit, no changes may be made to the files.

7.   The use of manuals or notes is strictly forbidden.

8.   The Specialist Teacher should ensure that all the computers are in good working order and that there is plenty of paper and ink/toner available for the printer.

9.   Spare external storage devices containing the relevant files must be available and, if numbers allow, a computer should be kept unused and available in case a computer goes down.

10.   Candidates must have access to relevant software packages on the day of the examination.

11.   The Specialist Teacher is requested to be available in the school on the day of the examination.

        I have read the above conditions and I agree to abide by them.

        Signed:_____ (Specialist Teacher)

        Date: _____

        This page, signed and dated, should be kept with the prepared external storage devices for the Superintendent.

Word Processing Assignment

1. Type the following passage using Times New Roman font, size 12 pt, single line spacing, without the border.

2. Margins of 2.5cm all around should be used.

3. Type the text exactly as shown. Do not correct any errors.

4. Save the file on to each candidate's external storage device as DRONE. Examination Number

The hottest toys for 2017 are going to be toy drones, and there are many newmodels and types of drones to buy.

Fliying a drone in itself is a learning process. This means that while a lot of fun, they are also a good method for teaching children to persist and be patient. Drones can also be powerful for developing children's hand-eye coordination skills as well as a potential spark for a lifelong fascination of flight and the science behind it. And, on top of all that, they are also a great way for children to spend time outdoors, which is always a good thing.

In aviation and in space, a drone is an unpiloted aircraft or spacecraft. Another term for it is an "unmanned aerial vehicle" or UAV.

Database Assignment

1.   Create a new database with the following structure.

     Field Name

     Make   25 characters
     Weight   Number
     Camera   Yes/ No
     Remote Control   Yes/ No
     Price   Currency €

2.   Input the following records into the database. DO NOT sort the database.

Make	Weight	Camera	Remote Control	Price
Robo	2.5	Yes	Yes	1020
Parrott	3	Yes	Yes	850
Wings	2.7	Yes	Yes	700
Eagle Eye	3	Yes	Yes	980
Phantom	3.5	Yes	Yes	1000
Inspire	4	Yes	Yes	800

3.   Save the database on to each candidate's external storage device as BUYERSGUIDE.

Desktop Publishing Assignment

1. Type the passage below using Times New Roman font, size 10 pt, single spacing, without the border.

Examination Number

SUPER SALE

1 Week Only

Largest Range of Drones

Up to 20% Off

Drone Cameras – Sold Separately

1 year warranty on all Drones

Extended Warranty Free this week

---

2. Save the file on to each candidate's external storage device as ADVERT

3. Locate any image of a drone and save it on to each candidate's external storage device as DRONEPIC.

Internet Assignment

1. Ensure that each candidate has their own email address in advance of the practical performance test.

2. Each candidate must have access to the Internet during the practical performance test.

3. Set up an email address to which candidates will send an email.

4. Create form EM1 as shown below and enter the email address onto it.

5. Sufficient copies of form EM1 must be made and handed to the Superintendent before the examination begins.

Form EM1

Leaving Certificate Applied 2017

Information and Communication Technology

Internet Module

Email Task

 You have been asked to compose an email.

Send your email to the following address.:

_____

Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate Applied 2017

Vocational Specialism –
Information and Communication Technology

Practical Performance and Written Test
(400 marks)

Wednesday, 17 May 2017
Morning, 10:00 - 12:00

for the superintendent only

Centre Stamp

General Directions

1.   Write your examination number in this space.

2.   Write your answers into this answerbook.

3.   Return all of your printouts with this answerbook.

There are three sections in this examination:

Section 1:   **General Theory**

Section 2:   **Word Processing**

Section 3:   **Optional Modules**

1. Running total	
2. Total of extra questions	
3. Total mark (1 minus 2)	

for the examiner only

SECTION		MARK
Section 1		
Section 2		
Section 3	Module 2	
	Module 3	
	Module 4	
	Module 5	
	Module 6	
TOTAL		

Section 1 - **General Theory** (80 marks)

Answer all 10 questions in the spaces provided.

1. Name **two** external backup devices for electronic files.

(a) _____

(b) _____

2. What do the following letters stand for?

(a) WLAN _____

(b) WAN _____

3. Give **two** ways of protecting your computer from viruses.

(a) _____

(b) _____

4. Name **two** peripheral devices that are both input and output devices.

(a) _____

(b) _____

5. What does each of these symbols represent?

(a) _____

(b) _____

6. What do the following letters stand for?

(a) OCR _____

(b) VDU _____

7. Name **two** commonly used computer operating systems.

(a) _____

(b) _____

8. Explain the following terms, giving **one** example of each.

(a) Browser _____

Example _____

(b) USB _____

Example _____

9. What unit is used to measure **each** of the following?

(a) Printer Output Speed _____

(b) Computer Processor Speed_____

10. Outline **three** steps involved in copying a file from a USB device to your desktop.

(a) _____

(b) _____

(c) _____

Section 2 - **Module 1: Word Processing** (80 marks)

There are two questions in this section of the examination.
Answer both questions.

11. Word Processing Theory (10 marks)

(a) Explain each of the following proofreading symbols.

(1) stet _____

(2) uc _____

(b) Making changes to an existing document is known as _____

Entering	Typing
Selecting	Editing

12. Practical Word Processing Assignment (70 marks)

There is a word processing file on your external storage device called **DRONE**.

(a) Open this file and make the changes shown on page 6.

(b) Insert your examination number in the position shown on page 6.

(c) Use today's date as a **centre aligned header** in the document.

(d) Insert the following text so that it appears as the last paragraph, using **full justification**.

When deciding on drones for children, it's important to be mindful of the size of the drone you want to purchase. You don't want to choose a large or heavy model that may be too difficult for your child to operate.

Checklist:
Size
Weight
Ease of Use

(e) Apply bullets to **each** the above, *Size, Weight* and *Ease of Use.*

(f) Add the following table to the end of your document, making sure it is positioned at the left margin, and add a border as shown.

Drone	Price
Parrott	€850
Eagle Eye	€980
Inspire	€800

(g) Spell check the document, correcting any errors.

(h) Proofread the document, correcting any errors.

(i) Insert automatic page numbering at the bottom right of the page.

(j) Save the document on your external storage device as **NEWDRONE** and print one copy.

Return the printout with your answerbook.

Examination Number

Bold, Outside Border, Initial Caps, 28 pt

drones for dummies

bold The hottest toys for 2017 are going to be toy drones, and there are many newmodels and types of drone to buy.

run on

np Fliying a drone in itself is a learning process. This means that while a lot of fun, they are also a good method for teaching children to persist and be patient. Drones can also be powerful for
comma developing children's hand-eye coordination skills as well as a potential spark for a lifelong
reason fascination with flight and the ~~science~~ behind it. Also, on top of all that, they are a great way
delete for children to spend time outdoors, which is always a ~~very~~ good thing.

Italics In aviation and in space exploration, a drone is an unpiloted aircraft or spacecraft. Another
term for it is an "Unmanned Aerial Vehicle" or UAV

fully justify

 * Insert paragraph from (d) here

 * Insert table from (f) here

 * Use double line spacing for the full document

Return the printout with your answerbook.

Section 3 - **Optional Modules**   (240 marks)

There are **five** modules in this section of the examination.
Complete any **three** of these modules.
All modules carry the same number of marks.

Module 2: Spreadsheets   (80 marks)

There are two questions in this module.
Answer both questions.

13. Spreadsheet Theory   (10 marks)

(a) Examine the spreadsheet below.

	A	B	C
1	**Hours Per Day**	**No of Days**	**Hours Worked**
2	8	5	*formula*
3			

Write the formula that would be used in cell **C2** to calculate the **Hours Worked**.

Formula: _____

(b) Name **three** different chart types that can be generated using a spreadsheet.

#	Chart Type
1	
2	
3	

14. Practical Spreadsheet Assignment (70 marks)

(a) Set up a spreadsheet as shown below. Align and format the spreadsheet as shown. Adjust column widths as necessary.

	A	B	C	D	E	F	G	H
1	Weekly Payroll Details							
2								
3	Employee	Hourly Rate	Hours	Gross Pay	USC 4%	Tax 26%	Savings Fund 3%	Take Home Pay
4								
5	Smith, U	15	13					
6	Kelly, J	12	30					
7	Ryan, G	17	28					
8	Bah, T	12	32					
9	Murphy, P	12	30					
10	Percivalola, B	19	30					
11	Hayes, A	18	42					
12							Total	
13	Examination Number						Average	
14							Minimum	
15							Maximum	

(b) Calculate the **Gross Pay** for the first employee by multiplying the **Hours** by the **Hourly Rate**. This should be displayed in cell **D5**. Repeat for each employee on the list.

(c) Calculate the **USC** by calculating **4%** of Gross Pay. This should be displayed in cell **E5**.

(d) Calculate the **Tax** by calculating **26%** of Gross Pay. This should be displayed in cell **F5**.

(e) Calculate the **Saving Fund** by calculating **3%** of Gross Pay. Display in cell **G5**.

(f) (1) Calculate the **Take Home Pay** in cell **H5**, by deducting USC, Tax and Savings Fund.

(2) Write down the formula you used to calculate the **Take Home Pay**.

_____

(g) Repeat steps (c) to (f) for each employee on the list.

(h) Calculate the **Total** Take Home Pay for all employees and display in cell **H12**.

(i) Calculate the **Average** Take Home Pay for all employees and display in cell **H13**.

(j) Calculate the **Minimum** Take Home Pay for all employees and display in cell **H14**.

(k) Calculate the **Maximum** Take Home Pay for all employees and display in cell **H15**.

(l) Format all cells that contain money to 'currency' with two decimal places (e.g. €90.00).

(m) Insert your examination number in cell **A13**.

(n) Delete **Row 4** in the spreadsheet.

(o) Create a line chart that will display the **Gross Pay** for each employee. Use your examination number and the words **Gross Pay** as the title of the chart.

(p) Print a **landscape** copy of both the spreadsheet and the chart.

(q) Save the file on your external storage device as **PAYROLL**.

Return the printout(s) with your answerbook.

Module 3: Databases   (80 marks)

There are two questions in this module.
Answer both questions.

15. Database Theory   (10 marks)

(a)   Which **one** of the following data types would be most suitable for a field containing payment amounts?

Decimal	Number	Currency

_____

(b)   Study the table below.

First Name	Surname	Wages	Promoted
Anna	Rozek	€145.00	Yes
Jerry	Brady	€193.00	No
Jan	Ramoni	€225.00	Yes

Which field is the table sorted by?

_____

Is this field sorted in ascending or descending order?

_____

16. Practical Database Assignment (70 marks)

There is a database file on your external storage device called **BUYGUIDE**.

(a) Open this file.

(b) Add a new field called **Manufactured** after the **Price** field. This should be formatted as a text field.

(c) Add the following data to the **Manufactured** field.

Make	Weight (g)	Camera	Remote Control	Price	Manufactured
Robo	302	Yes	Yes	€1020	China
Parrott	310	Yes	Yes	€850	China
Wings	250	Yes	Yes	€700	UK
Eagle Eye	380	Yes	Yes	€980	UK
Phantom	350	Yes	Yes	€1000	China
Inspire	310	Yes	Yes	€800	China

(d) Add the following records to the database.

Make	Weight (g)	Camera	Remote Control	Price	Manufactured
Kid Cam	340	Yes	Yes	€900	China
Spy Cam	297	Yes	Yes	€560	China

(e) Amend the **Wings** record. The **Weight (g)** should be **370** and it has **No Camera**.

(f) Delete the record for **Robo**.

(g) Sort the database in descending order according to **Price**.

(h) Having made the above changes, **print** the database.
Write your examination number on this printout.

(i) Filter the database to find all records that have a **Weight (g)** of less than 360.
Sort these by **Make** in ascending order and **print**.
Write your examination number on this printout.

(j) Save the query as **Weight**.

(k) Save the database to your external storage device and close.

Return the two printouts with your answerbook.

Module 4: Desktop Publishing (80 marks)

There are two questions in this module.
Answer both questions.

17. Desktop Publishing Theory (10 marks)

(a)   Explain **each** of the following terms.

(1) Drop Cap _____

_____

_____

(2) Character Spacing _____

_____

_____

(b)   Which **one** of the following is a commonly used Desktop Publishing package?

QuarkXPress	Publer	Pager

_____

18. Practical Desktop Publishing Assignment   (70 marks)

There is a text file on your external storage device called **DroneDTP** and an image called **DronePIC**. Use this text and clipart to create the document shown on page 13:

(a)   Insert your examination number in the position shown.

(b)   Insert the heading **Drones – What We Need to Know** using Arial font, centred, 28pt and bold.

(c)   Apply grey shading and a box border to the heading, as shown on page 13.

(d)   The document is to have 3 columns of equal width.

(e)   All body text should be Calibri font, size 14pt, fully justified, unless otherwise instructed.

(f)   Subheadings are to be 16pt and **Bold**, as shown.

(g)   Insert the **DronePIC** image in the position shown and increase its width to 6 cm, leaving the 'aspect ratio' locked.

(h)   Bullet the 5 lines of text in the 3rd column as shown.

(i)   Insert a piece of WordArt using the text **Drone Guide**, as shown.
       Resize the WordArt so that it is 4 cm in height × 6 cm in width.

(j)   Put a black border, like the one shown, around the entire page.

(k)   Save the document as **DroneDTP2** and print one copy.

Return the printout with your answerbook.

Drones – What We Need to Know

Intro

As drones continue to surge in popularity, children are the newest players wanting to get in on the action. Drones for children aren't quite like the professional recreational models that adults are flying, but many of them still come packed with some impressive features.

Since our interests are always changing, it's crucial to test the waters so you don't end up spending a ton of money on a hobby that they'll end up hating.

Start Small

You can always invest more in an activity that your child truly loves after 6 months or a year of watching them stick with it.

Drones can be a great hobby for adults and children alike. As children become better drone operators, they can pursue the hobby more seriously. The nice thing about getting your child a toy drone is that the hobby brings the outdoors and technology together. In a world where children are spending more time indoors glued to smart screens, drones are a wonderful alternative to introduce them to leading-edge technology while also getting them to step out of their rooms.

Today, around the world, there is an increasing influence on the four main STEM subjects, Science, Technology, Engineering & Mathematics.

It is not advisable to aggressively push anybody into robotics, computer science, biology, or other subjects aimed at solving real-world challenges. Remember, learning should be fun! Drones can help children develop critical thinking and problem solving skills while enhancing their creativity - especially they opt for a model with photo or video capabilities.

So if you are into technology or always trying to snap photos and capture videos with your smartphone, it may be a good time to get started with your own toy drone.

Options

However, choosing the right drone isn't the easiest task. While there are lots of options available, you'll want to keep a few things in mind when shopping for drones:

- Price
- Ease-of-Use
- Size
- Photo/Video Capture
- Flight Controller.

Price

When it comes to buying a drone, the temptation is to buy the most expensive model on the market, but this isn't always the greatest idea for beginners.

Drone Guide

Module 5: The Internet   (80 marks)

There are two questions in this module.
Answer both questions.

19. Internet Theory   (10 marks)

(a)   Name **two** browsers that can be used to access the Internet.

(1)   _____

(2)   _____

(b)   What do the following letters stand for?

(1)   HTML   _____

(2)   ISP   _____

20. Practical Internet Assignment   (70 marks)

TASK 1

(a)   Log on to the Internet.

(b)   Open **one** of the following sites:

- www.lidl.ie

- www.aldi.ie

(c)   Save a picture of any current special offer as **OFFERPIC** to your external storage device.

(d)   Open a page that shows information on **special offers**. Print only the **first** page.
       Write your examination number on the printout.

(e)   Save the page to your external storage device as **OFFERS**.

TASK 2

(a)   Use any search engine to **open** a page on **My First Drone**.

(b)   Save the web page to your external storage device as **DroneOne**.
       Print only the **first** page. Write your examination number on the printout.

TASK 3

(a)   Type the following email to be sent to the address given on form **EM1**.

(b)   CC the email to your own email address.

(c)   The subject of the email is *Buying a Drone*.

(d)   The text of the email is:

> Hi Denise,
> I want to buy a starter drone. Could you tell me if there are any good offers available
> at the moment in any of the shops?
> Signed: (Your Examination Number)

(e)   Attach the **OFFERPIC** graphic file to your email.

(f)   Send the email.

(g)   Open the email you have sent to yourself and print one copy.

       NOTE: Make sure both email addresses from (a) and (b) in Task 3 appear on the
       printout of the email.

Return the three printouts with your answerbook.

Module 6: Text Entry   (80 marks)

There are two questions in this module.
Answer both questions.

21. Text Entry Theory   (10 marks)

The following passage has at least 10 errors. These include spelling, punctuation and layout errors. Proofread the document and mark the errors with a pen.

The first tip for buoying a drone is to identify the purpose for which your want this vehicle. For instance, if you are looking to get this device for purely recreational purposes then even a small and cheep quadcopter would be enough.However, if you want to boy the drone for professional aerial photography and videography, then you will have to go go for a more advanced model that is kapable of capturing photos at different angels. For cargo carrying requirements, you will require a drone that is capableof lifting heavy loads and carrying them over a long distance. If

you plan on buying the drone for inspection purposes, then it would be best for you to opt for a drone that can function in unfavourable conditions. Drones used for wildlife photography are usually quite expensive and should only be bought if your a wildlife photographer who wants to capture the wild animals in there natural habitat with out risking yourself.

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22. Practical Text Entry Assignment (70 marks)

TASK 1   **Data Entry Test**

(a)   Insert your examination number in the position shown.

(b)   Type the following passage in Calibri Font, 12pt with double line spacing.

(c)   Format the text as shown below.

(d)   Save it to your external storage device as **PHANTOM** and print one copy.

(Examination Number)

* NOTE: before taking your drone out for its first flight, use a marker and <u>write your phone number</u> on it clearly with the words "REWARD". If you lose it, you just might look-out for a phone call. You may want to put the reward amount on there too. A *reward* of €50 might be enough.

I assembled my Phantom drone with no problems (I watched a YouTube video on how to do it!) and headed out to a large field. It was a fairly breezy day. Since I really didn't know how to use the controller, it took me over five hours to figure it out.

I played with it on the ground for about 30 minutes before I raised it up and it took flight. It takes a lot of practice to get used to the controls.

(P.S. I would recommend the Phantom X^2 for beginners.)

Return the printout with your answerbook.

TASK 2   Creating a Programme

(a)   Insert your examination number at the top of your document.

(b)   You have been asked to create a Programme for a Drone Expo using the following information.

(Examination Number)

Saturday 8th July 2017
Drone Expo
Programme
9:00 am   Registration
9:30 am   Flying Exhibition
10:30 am   Advice on Buying a Drone
11:30 am   Competition Time
1:00 pm   Lunch
2:00 pm   Practical Sessions
                    You will need to book a time slot.
                    Places are limited.
3:00 pm   Camera Demo
4:00 pm   Coffee and Sales Pitch
5:00 pm   Expo closes
Admission Fees
Adults: €10.00
Children <12 years: €5.00

(c)   The date is to be emphasised with a larger font size, Calibri and Bold.

(d)   The heading **Drone Expo** is to be formatted as Cambria Font, 22pt, Bold and Centred.

(e)   Emphasise the **Programme** text so that it stands out on the page, using at least 3 formatting options.

(f)   Format the remaining text by as Cambria Font, 18pt.

(g)   Use tabs to align the programme as shown.

(h)   Apply Bold formatting to **all** event times.

(i)   Centre the pricing information.

(j)   Apply spacing to the document so that it fits on one A4 page, with good use of white space.

(k)   Add an art border to the full page.

(l)   Save the file as **EXPO** and print one copy.

Return the printout with your answerbook.

Blank Page

Blank Page