OCR GCSE (J277)

Module I: Impacts and the law

Workbooklet · 7 parts · 144 marks

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	Total	**144**

MODULE I IMPACTS AND THE LAW · I1

Ethical and privacy impacts of digital technology

Original practice questions · 22 marks · ~25 minutes · OCR J277 spec 1.6.1

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **22 marks**. Question 5* is marked on the quality of your extended response: aim to spend about 10 minutes on it.

1

Total: 3 marks

(a) State what is meant by an **ethical issue** in the use of digital technology. **[1]**

(b) A smartphone app can collect personal data about the person using it. **[2]**
Give **two** types of personal data that the app could collect.

1

2

2

Total: 4 marks

(a) Tick (✓) **one** box in each row to show whether each statement is true or false. **[4]**

Statement	True	False
A use of technology can be legal but still be unethical.		
Cookies can be used to build up a profile of a person's interests from the websites they visit.		
Once a person has agreed to an app's terms and conditions, the app cannot cause them any privacy issues.		
When a person deletes a photo they shared online, every copy of that photo is also deleted.		

3 **Total: 4 marks**

A company makes a fitness wristband. The wristband records the wearer's heart rate and sleep, and uses GPS to record the route of every run, including where each run starts and finishes. This data is uploaded to the company's servers. The company plans to sell the data, with each wearer's name attached, to other organisations such as health insurance companies.

(a) Explain **one** privacy issue for the wearers caused by this plan. **[2]**

(b) Explain **one** way, other than a loss of privacy, that this plan could harm the wearers. **[2]**

4 **Total: 3 marks**

An employment agency uses an artificial intelligence (AI) program to read job applications and decide which applicants are invited to an interview. The program learned how to make these decisions from the agency's past hiring decisions. No member of staff checks the program's decisions.

(a) Explain **one** ethical issue of using this program to make these decisions. **[2]**

(b) Give **one** benefit to the agency of using this program. **[1]**

5*

Total: 8 marks

A parcel delivery company wants to monitor its delivery drivers more closely. It plans to:

- fit every van with a GPS tracker that records the van's location every minute
- fit a camera inside every van that records the driver for the whole working day, including breaks
- record how long each driver spends at each delivery address.

Managers will be able to watch all of this data live, and the company will store it.

Discuss whether the company should go ahead with this plan. **[8]**

In your answer you should consider:

- ethical issues
- privacy issues
- who benefits from the plan and who could be harmed by it.

Total for this worksheet: 22 marks

MODULE I IMPACTS AND THE LAW · I2

Cultural impacts of digital technology

Original practice questions · 20 marks · ~25 minutes · OCR J277 spec 1.6.1

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. Question 5 is marked with an asterisk (*): it is marked on the quality of your extended response. The total for this worksheet is **20 marks**.

1

Total: 4 marks

(a) Tick (✓) **one** box in each row to show whether each statement describes a positive or a negative cultural impact of digital technology. **[4]**

Statement	Positive	Negative
Relatives who live in different countries can see and talk to each other on video calls		
False stories posted on social media can be shared with millions of people within hours		
People who find it hard to leave their home can order shopping online and have it delivered		
Office workers feel they must answer work messages on their phones late in the evening		

2

Total: 2 marks

(a) Describe what is meant by the **digital divide**. **[2]**

3 **Total: 4 marks**

A charity in a large city lends laptops to adults and teaches them how to use the internet. Many of the adults it helps do not have a computer or an internet connection at home.

(a) Give **two** reasons why an adult might not have an internet connection at home. **[2]**

1

2

(b) Explain **one** way that an adult without internet access at home may be disadvantaged. **[2]**

4 **Total: 2 marks**

In a market town, a bookshop, a music and film shop and a travel agent have all closed in the last few years.

(a) Explain how digital technology may have led to shops like these closing. **[2]**

5*

Total: 8 marks

An insurance company has 1,800 office staff who all work in its city-centre office. The company has decided that staff will now work from home four days a week. They will use laptops, video calls, instant messaging and cloud-based software. The company will move to a smaller office in the city centre.

Discuss the cultural impacts of this decision. **[8]**
Include in your answer:

- how staff work and communicate
- staff's lives outside work
- the city centre and the people who work there.

Total for this worksheet: 20 marks

MODULE I IMPACTS AND THE LAW · I3

Environmental impacts and e-waste

Original practice questions · 21 marks · ~25 minutes · OCR J277 spec 1.6.1

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. Question 4 is marked by the quality of your extended response (*). The total for this worksheet is **21 marks**.

1

Total: 5 marks

Digital devices affect the environment when they are made, when they are used and when they are thrown away.

(a) Tick (✓) **one** box in each row to show the stage of a device's life when each environmental impact happens. **[5]**

Environmental impact	Making the device	Using the device	Disposing of the device
Rare metals are dug out of the ground by mining			
A room of servers runs day and night and needs air conditioning to stop it overheating			
Harmful substances leak out of broken printers that have been buried in landfill			
A factory uses large amounts of energy and water to produce microchips			
Unwanted computers are shipped abroad and burned in the open to recover the metal inside			

2

Total: 3 marks

(a) State what is meant by **e-waste**. **[1]**

(b) Explain why putting e-waste into landfill can harm the environment. **[2]**

3 **Total: 5 marks**

A city council has 400 desktop computers in its offices. In the past it replaced all of them every 3 years, even though most still worked. The council now plans to keep each computer for 6 years instead.

(a) The council will still need to get rid of some old computers. Give **two** ways the council could get rid of old computers that reduce the harm to the environment. **[2]**

1

2

(b) Explain **one** environmental benefit of keeping each computer for 6 years instead of 3 years. **[2]**

(c) State **one** possible environmental drawback of keeping each computer for 6 years instead of 3 years. **[1]**

4* **Total: 8 marks**

A regional bus company plans to:
• stop selling paper tickets and printing paper timetables, and sell all tickets through a mobile phone app instead
• remove the ticket machines from all of its buses
• fit every bus with sensors that record its location, its fuel use and the air quality along its route.
The app and the sensor data will run on servers in a data centre that is always switched on.

Discuss the environmental impacts of this plan. **[8]**
In your answer you might consider:
• making and running the new technology
• what happens to the equipment that is no longer needed
• how the new technology could reduce harm to the environment.

Total for this worksheet: 21 marks

MODULE I IMPACTS AND THE LAW · I4

The Data Protection Act 2018

Original practice questions · 20 marks · ~25 minutes · OCR J277 spec 1.6.1

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **20 marks**. Answer using UK law as at November 2026.

1

Total: 2 marks

Describe the purpose of the Data Protection Act 2018. **[2]**

2

Total: 6 marks

A bike-hire company keeps the names, addresses, phone numbers and hire records of its customers on a computer system.

Tick (✓) **one** box in each row to show whether each action by the company follows the Data Protection Act 2018 or breaks it. **[6]**

Action by the bike-hire company	Follows the Act	Breaks the Act
Asks every new customer for their religion before they can hire a bike		
Explains on the hire form what customers' details will be used for		
Stores the customer list on a laptop with no password, which staff take home		
Changes a customer's address on the system after she says she has moved		
Keeps every customer's details for ever, including customers who last hired a bike many years ago		
Sends a customer a copy of the personal data it holds about him after he asks for it		

3 Total: 4 marks

The Data Protection Act 2018 gives each customer of the bike-hire company rights over the personal data the company holds about them. **[4]**
Describe **two** of these rights.

1

2

4 Total: 4 marks

An employee of the bike-hire company copies the names, phone numbers and addresses of 400 customers onto a USB memory stick to work at home. The memory stick is not encrypted. The employee loses it on a train.

(a) Identify the rule of the Data Protection Act 2018 that the company has failed to follow. **[1]**

(b) State **one** action that the UK's data protection regulator could take against the company. **[1]**

(c) Give **two** ways the company could have protected this personal data. **[2]**

1

2

5 **Total: 4 marks**

The bike-hire company collected customers' email addresses so that it could email them a receipt for each hire. The owner now plans to give all of these email addresses to a holiday company, so that the holiday company can send the customers adverts.

Explain how the Data Protection Act 2018 affects the owner's plan. **[4]**

Total for this worksheet: 20 marks

MODULE I IMPACTS AND THE LAW · I5

The Computer Misuse Act 1990

Original practice questions · 21 marks · ~25 minutes · OCR J277 spec 1.6.1

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The law is described as it stands in the UK as at November 2026. The total for this worksheet is **21 marks**.

1

Total: 1 mark

State the purpose of the Computer Misuse Act 1990. **[1]**

2

Total: 4 marks

Tick (✓) **one** box in each row to show whether each statement about the Computer Misuse Act 1990 is true or false. **[4]**

Statement	True	False
Looking at files on someone else's computer system without permission is an offence, even if nothing is changed		
A security tester breaks the Act when they try to get into a company's network after the company has given them written permission to do so		
Making a virus so that another person can use it in an attack can be an offence under the Act		
The Act sets out how organisations must store and use customers' personal data		

3 **Total: 6 marks**

A chain of garden centres uses an online system to manage its stock and customer orders. A man who worked for the chain left his job last month. He still remembers a manager's username and password, and he uses them to log in to the system from home on three different days.

For each action, identify the offence under the Computer Misuse Act 1990 that **best** matches it, and explain why.

(a) Day 1: he looks at the weekly sales figures. He does not change or copy anything. **[2]**

Offence

Why

(b) Day 2: he copies the payment card details of some customers. He plans to use them to buy goods online for himself. **[2]**

Offence

Why

(c) Day 3: he deletes all the stock records, so the garden centres cannot take orders. **[2]**

Offence

Why

4 **Total: 3 marks**

A concert venue sells tickets on its website. On the morning a big tour goes on sale, a woman carries out a denial of service attack on the website, so customers cannot reach it for two hours. The software she used was bought from a seller who advertised it online as a way to "knock any website offline".

(a) Identify the offence under the Computer Misuse Act 1990 that the woman has committed. **[1]**

(b) The seller did not attack the website. Explain why the seller can still be prosecuted under the Computer Misuse Act 1990. **[2]**

5 **Total: 3 marks**

A hotel guest guesses the password for the hotel's booking system and looks through other guests' bookings. She changes nothing. The next morning she tells the hotel manager that the password was easy to guess.

Explain whether the guest has broken the Computer Misuse Act 1990. **[3]**

6 **Total: 4 marks**

The owner of an online clothing shop wants to know how the Computer Misuse Act 1990 helps to protect the shop and its customers. **[4]**

Explain **two** ways the Act helps to protect the shop and its customers.

1

2

Total for this worksheet: 21 marks

MODULE I IMPACTS AND THE LAW · I6

The Copyright, Designs and Patents Act 1988

Original practice questions · 20 marks · ~25 minutes · OCR J277 spec 1.6.1

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **20 marks**. All questions are about UK law as at November 2026.

1

Total: 2 marks

State the purpose of the Copyright, Designs and Patents Act 1988. **[2]**

2

Total: 5 marks

A freelance graphic designer makes leaflets, adverts and websites for local businesses. She is checking which of her actions follow the law.

Tick (✓) **one** box in each row to show whether each action is allowed or prohibited by the Copyright, Designs and Patents Act 1988. **[5]**

Action	Allowed	Prohibited
Making copies of a paid-for design program and giving them to friends		
Using a photographer's picture in a client's leaflet after buying a licence from the photographer that allows this use		
Using a piece of music the designer wrote and recorded herself in a client's advert		
Copying the text from another company's website onto a client's website without permission		
Selling copies of a film that the designer downloaded from a file-sharing website		

3 **Total: 4 marks**

The owner of a mobile dog-grooming business is making a website. She searches the internet for photographs of dogs and plans to copy some of them onto her website without asking anyone.

(a) Explain why the owner could be breaking the Copyright, Designs and Patents Act 1988. **[2]**

(b) Give **two** ways the owner could put photographs on her website without breaking the Copyright, Designs and Patents Act 1988. **[2]**

1

2

4 **Total: 6 marks**

A two-person games studio spent two years writing a game, which it sells online. A website has started letting people download copies of the game for free. The studio did not give the website permission to do this.

(a) Identify **two** actions in this scenario that are prohibited by the Copyright, Designs and Patents Act 1988. **[2]**

1

2

(b) Explain **two** ways this illegal copying could affect the games studio. **[4]**

1

2

5 **Total: 3 marks**

An architecture firm buys an off-the-shelf drawing program. The licence it buys allows the program to be installed on 10 computers. The firm installs the program on 15 computers.

Explain why the firm is breaking the Copyright, Designs and Patents Act 1988. **[3]**

Total for this worksheet: 20 marks

MODULE I IMPACTS AND THE LAW · I7

Software licences: open source vs proprietary

Original practice questions · 20 marks · ~25 minutes · OCR J277 spec 1.6.1

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **20 marks**.

1

Total: 4 marks

(a) Tick (✓) **one** box in each row to show whether each statement describes **open source** software or **proprietary** software. **[4]**

Statement	Open source	Proprietary
The source code is provided with the software		
It is commonly bought off-the-shelf, and a licence fee is paid to use it		
Users are allowed to change the software to meet their own needs		
Users cannot see the source code, so they cannot edit the program		

2

Total: 4 marks

Larchfield Systems Ltd writes stock-control software. It sells copies of the software to shops, which install it on their own computers.

(a) Describe the purpose of a **software licence**. **[2]**

(b) Explain why Larchfield Systems needs to license its software to the shops that buy it. **[2]**

3 **Total: 6 marks**

Riverbend Community Hall is a small charity run by adult volunteers. It has been given six old laptops. The volunteers need an operating system, office software and a program to manage room bookings on each laptop. The charity has very little money to spend. One volunteer is a retired software developer who can program.

(a) Describe **two** benefits to the charity of choosing **open source** software for the laptops. **[4]**

1

2

(b) Describe **one** drawback to the charity of choosing **open source** software for the laptops. **[2]**

4 **Total: 6 marks**

Hartwell Survey Partners is a firm of 40 building surveyors. It needs new software to write and store the survey reports it sends to its clients. None of the staff can program. Reports must reach clients by strict deadlines, so the software has to work reliably every day. The firm has two options:

Option A	Option B
An **open source** report program. It is free to download. It is written by volunteers, who answer questions on an online forum when they have time.	A **proprietary** report package, bought off-the-shelf. The firm pays a licence fee every year for each member of staff. The company that makes it runs a telephone help desk and releases regular updates.

(a) Identify which type of licence you would recommend for Hartwell Survey Partners. Justify your choice. Your answer should include **benefits** and **drawbacks** of the type of licence you recommend, applied to this firm. **[6]**

Recommended licence:

Total for this worksheet: 20 marks