

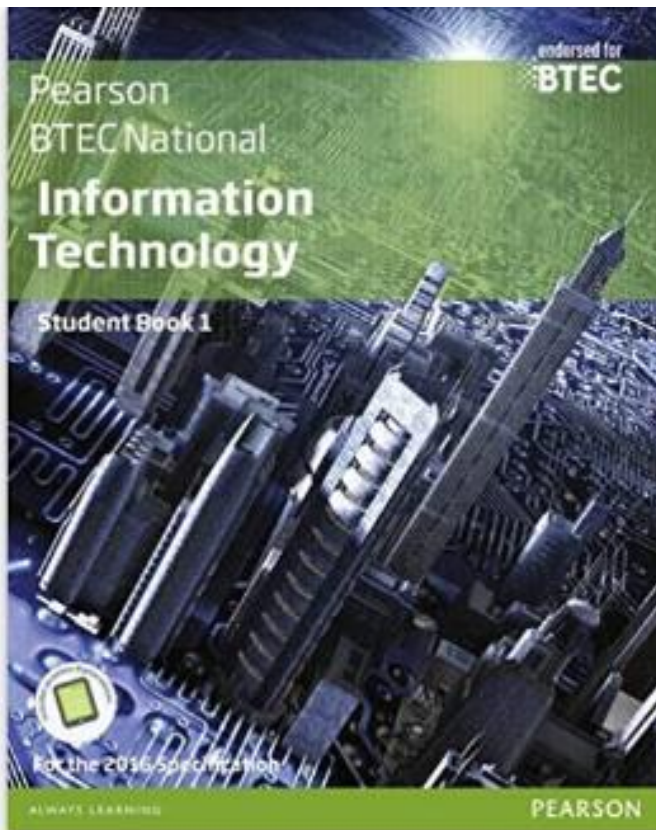
BTEC ICT

Summer Booklet



Name:

Book Recommendations



BTEC Nationals Information Technology Student Book

Note: I would recommend you buy this book from Amazon as it would be the cheapest option.

Course Information

Students are studying for the Edexcel BTEC National Information Technology Level 3 Extended Certificate. This year they will be focusing on Unit 2 & Unit 3. In year 13, students will pick up on unit 1 for which they will sit an exam in January 2022.

This year the course consists of the following two units of study:

Unit 2: Creating Systems to Manage Information

Students will be learning both theory and practical skills to complete a 5 hour exam using Microsoft Access (a Database Management Software). The exam will cover database concepts such as data validation, database structures, queries, forms and reports. The exam will be sat in May and students must at least pass the exam to progress into year 13.

Unit 3: Using Social Media in Business

Students will be learning how businesses use social media to aid the running of a business. This unit will contain course work which students will need to complete to set deadlines. BTEC deadlines are strict and students must adhere to these. Students must achieve at least a pass in the coursework to progress into year 13.

All students on this course will be given the following targets:

- Ensure to complete all classwork set.
- Ensure all homework is completed on time.
- Ensure to meet all coursework deadlines
- if unsure of anything, students must take responsibility and fill gaps in their knowledge.
- If absent, students must catch-up work by taking onus of gaps. Students should not wait until next lesson as the class will move on.

All targets will be reviewed fortnightly. Parents and Head of Faculty will be alerted if targets are not met.

Welcome to BTEC Information Technology!

To ensure that you are fully ready for your first lessons in BTEC Information Technology you need to complete the following:

Task 1:

Scenario

You have been employed as the head of social media for a new trainer company. They have asked you to choose the appropriate social media platform which you think will help the business grow. They want to be able to post pictures of their products and reply to customer queries and feedback. They will also like a platform to post news on upcoming events.

Question

What social media sites would you advise this company to use and why? Explain your selections in detail.

Task 2

Research the definition for the following words:

1. Direct Advertising
2. Indirect Advertising
3. Audience profile
4. Acceptable Use Policy

Give an Example for each one

Task 3

Research and write a brief paragraph on the following keywords:

- 1. Database relations**
- 2. Relational keys**
- 3. Integrity constraints**
- 4. Entity relationships**

Task 4

Answer all questions from this practice exam paper. You may internet research to help you.

Please check the examination details below before entering your candidate information

Candidate surname					Other names					
Pearson BTEC Level 3 Nationals Extended Certificate, Foundation Diploma, Diploma, Extended Diploma	Centre Number					Learner Registration Number				
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Monday 20 January 2020										
Morning (Time: 2 hours)					Paper Reference 31760H					
Information Technology Unit 1: Information Technology Systems										
You do not need any other materials.								Total Marks		

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and learner registration number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 90.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Answer ALL questions. Write your answers in the spaces provided.

- 1** Fulmill is an inner-city suburb. Fulmill Community Group (FCG) has been set up to encourage local people to become involved in the community.

FCG produces a newsletter providing local news and information. The newsletter is currently printed to be collected from local shops. FCG is considering replacing the printed copy with an online version.

- (a) (i) Give **two** drawbacks for members of the community of replacing the printed copy with an online version.

(2)

1

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2

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- (ii) Give **two** benefits for members of the community of replacing the printed copy with an online version.

(2)

1

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2

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(b) Kerry is a member of FCG. She has a BITMAP image that she wants to include in the FCG newsletter.

She is going to send the image as an email attachment. FCG has asked Kerry to convert the file into JPEG format.

(i) Explain **one** benefit to FCG of converting the file from BITMAP (.bmp) format to JPEG (.jpg) format.

(2)

(ii) Explain **one** drawback to FCG of converting the file from BITMAP (.bmp) format to JPEG (.jpg) format.

(2)

(c) Two protocols used to control the data transmission of emails are Simple Mail Transfer Protocol (SMTP) and Internet Message Access Protocol (IMAP).

Explain the roles of SMTP and IMAP in the transmission of emails.

(4)

SMTP

IMAP

2 Bassett's college has a local area network (LAN) that can be accessed by students on-site and remotely.

(a) Access to the server room is restricted by a keypad entry system. A four-digit code is issued to authorised users on a weekly basis.

The college is considering changing to an ID card entry system.

Explain **two** ways in which an ID card entry system makes access to the server room more secure than a keypad entry system.

(4)

1

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2

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(c) Students often use the college network to help them work collaboratively on projects.

Explain **two** features of the college network that students can use to work collaboratively.

(4)

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3 Joe runs a small company. The company is moving to a purpose-built office.

Joe has asked an IT expert for advice about suitable IT systems. The IT expert has proposed several alternative solutions.

One solution is to set up a local area network (LAN) that will provide:

- wired connections for five PCs
- a file server
- a backup server
- two networked printers
- secure internet access
- wireless access for laptops and other mobile devices.

(a) Draw a diagram to show the setup of the LAN.

The diagram should include:

- the devices used by the system
- the connections between the devices
- annotations indicating the devices and the types of connections.

(b) The proposed LAN has five PCs with wired connections.

Explain **two** implications of using a wired rather than a wireless connection.

(4)

1 _____

2 _____

(c) A network operating system will be installed on the file server. One role of a network operating system is to manage security.

Describe **two other** roles of a network operating system.

(6)

1

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4 GBA provides financial services and advice to clients.

The company is relocating to a smaller office.

Following the move, GBA will offer some employees the option to work from home.

(a) Discuss how technology enables employees to work effectively from home.

You should consider factors affecting:

- access to systems and data
- communication
- data security.

(10)

END OF TASK 4

Task 5

Copy the following data into a Microsoft Excel Spreadsheet and complete the tasks below.

Surname	Forename	Age	Test Mark	Paper 1	Paper 2	Paper 3	Paper 4
Plotter	Harry	11	0.8	65	66	98	89
Beasley	Ronnie	12	0.79				
Ranger	Harmony	12	0.98				
Blue	Lavender	14	0.64				
Malloy	Drakcoe	12	0.35				
Crab	Vince	15	0.47				
Flynt	Mark	13	0.52				
Groyle	Gregory	13	0.86				

1. Open the spreadsheet called 'school_tests.xls'
2. Save the spreadsheet to your area and call it 'tests'
3. Rename the tab to 'test results'
4. Highlight cells A1:D1.
 - Change the font colour to your own choice
 - Change the font style to your own choice
 - Resize the font to size 14
 - Resize the columns so that all of the text shows properly
 - Centre the headings
 - Add an appropriate image

5. Click on row 1 and insert 2 new rows

6. In cell A1, write 'school test results'

- Change the font colour to your own choice
- Change the font style to your own choice
- Resize the font to size 18

7. Make row 1 wider (or deeper)

8. Merge cells A1:C1

9. Centre the text in cells A1:C1

10. Highlight cells A3:D11 and add a background colour



11. Add a thick black border around the table

12. In cell C12 write 'Average'

In cell C13 write 'Highest'

In cell C14 write 'Lowest'

Make sure that column C is wide enough to see this text

13. Highlight cells D4:D11

Format these cells as a percentage with 0 decimal places

14. In cell D12, write a formula to find the average test mark

15. In cell D13, write a formula to find the highest test mark

16. In cell D14, write a formula to find the lowest test mark

17. Highlight cells A3:D11

Sort the table on column C – Age in 'ascending' order so that the youngest is at the beginning of the column and the oldest at the bottom

18. Highlight columns B3:C11.

Create a column chart and make it 'as a new sheet'

Make sure your chart:

- Has a sensible title
- Has labelled axis
- Does not have a legend
- Is on a new sheet

19. Highlight cells A3:D11



Sort the table on column D – 'Test Mark', this time in 'descending' order so that the highest mark is at the top of the column and the lowest mark at the bottom (see video tutorial again if you need to)

20. Highlight cells A4:A11 and also D4:D11 (remember to use the 'Ctrl' key to let you do this)

Create a 'bar' chart using the data in A4:A11 and D4:D11

Make sure your chart

- Has a sensible title
- Has labelled axis
- Does not have a legend
- Is on a new sheet

21. Highlight cells J3:M4

Create a 'pie' chart using the data in J3:M4

Make sure your chart

- Has a sensible title
- Shows the percentages
- Has a legend
- Is on a new sheet

Task 6

Access 2016 - How to Make a Database - Part 1 - Tables

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Up next

AUTOPLAY

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Sali Kaceli
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Getting Started: Using Tem 1:11:43

Access 2016 Access 2016 - Relationships -

1. Search for the above video on YouTube. The video is a step by step guide to creating a database using Microsoft access
2. Use to video to help you start creating your own database using access
3. Please ensure you save this once completed because I will be asking for a digital copy along with the completed handbook.



Useful Websites

1.

Youtube.com (This is very useful for tutorials on how to create things using programs you may be unfamiliar with.)



2.

Knowitallninja.com- This has most of the content you will need to support you while on this course. (*Login Available on request. Just email Mr Olaitan for a user name and password*)



3.

BBC Bitesize- useful IT information can be found on this site.



Useful Information

1. Please try your best to complete all the activities in this handbook. You will need to complete this before you start in September.
2. Please ensure you save this Spreadsheet and the database tasks because you will need to submit these digitally along with your workbook.

