Pearson

BTEC Nationals IT - Unit FAQs (not U2 or U3)

Q1	Unit 4 - Learning Aim A
Q2	Unit 5 – Complexity of Spreadsheet solution
Q3	Unit 6 – Requirements for B.P2
Q4	Unit 1 – Exam question Technique
Q5	Unit 4 – Features and characteristics of programming languages
Q6	Unit 6 - JavaScript expectations
Q7	Unit 6 – Client-side scripting
Q8	Unit 4 – Example code requirements
Q9	Unit 1 – Flowchart requirements
Q10	Unit 1 - Productivity Applications
Q11	Unit 6 – Website comparisons
Q12	Unit 9 – Classification of SDLC models
Q13	Will GDPR be accounted for in this qualification?
Q14	Unit 5 - How to evidence responsibility, time management and decisions
Q15	Unit 11 - What is meant by 'Threat title'
Q16	Unit 1 - What is the Police and Justice Act 2006 (Computer Misuse)
Q17	Unit 6 – Command word clarification
Q18	Unit 11 – What is Storage Defined Networking?
Q19	Unit 6 – General Unit 6 Questions?
Q20	Unit 4 - Can students use Scratch?
Q21	Unit 11 – Part A Task 3 clarification
Q22	Unit 4 – Exemplar code
Q23	Unit 9 – Exemplar material
Q24	Unit 1 - GDPR current legislation?
Q25	Unit 9 - Assignment Brief for LA-B&C
Q26	Unit 1 – June 2018 paper Q3 clarification
Q27	Unit 7 - What is meant by 'current technologies'
Q28	Unit 1 – Flow Chart symbols
Q29	Unit 10 – Data to use for analysis
Q30	Unit 8 – P1/P2 clarification

Q1) - Unit 4 - Learning Aim A

The programming unit and the specification states: "The code base used by learners in their investigation must be of sufficient complexity to allow analysis of the implementation of a range of programming constructs"

What sort of codes would you suggest we include in our code base and do you have any suggested sources to obtain this from?

Q1 Answer:
Thank you for your query. Looking at the unit content, I would suggest that the focus for complex code base should focus on A4 in the unit content. Therefore the code should use a range of the following.

Programming languages, constructs and techniques, including:

- command words
- constants and variables, local and global variables
- data types – character, string, integer, real, Boolean
- statements – assignment, input and output, sequence, iteration, selection
- logical operations.

Other constructs, such as:

- subroutines, functions and procedures
- string handling, including examining single characters and substrings
- arrays – two-dimensional and three-dimensional, splitting and joining
- file handling – open, read, write, close, database
- data structures
- event handling.

This list is not exhaustive, however the code used by learners should use a range of the above or other constructs / techniques of a similar level.

Back to Index

Q2) - Unit 5 – Complexity of Spreadsheet solution

My worry is that I do not want to make the spreadsheet too easy or difficult can you please help me to scope the complexity that is required?

Q2 Answer:
If you look at the assessment guidance the main part of this for the actual spreadsheet development is 'Learners will develop their final design using a range of appropriate, advanced spreadsheet features and functions.' Therefore as long as learners have used a range of the tools from each subheading in C1 of the specification for Unit 5 then that will be enough. They will probably need 3 to 4 worksheets and links between them which the tools listed in C1 being used across the whole workbook.

Back to Index

Q3) - Unit 6 – Requirements for B.P2

Please can you clarify what is required for the BTEC in IT - Unit 6 website development for the following section;
6/B.P2 - Produce designs for a website that meet client requirements.

Q3 Answer:
For unit 6, learning aim B, assessment criteria P2, learners could create a design specification which includes the following:

- Definition of the problem the website will solve
- Purpose/audience of the website
- Constraints involved in the project (e.g. time, software availability)
- Graphical designs of the different pages (e.g. storyboards, mood boards etc).
- Navigation plan / interaction methods
- Asset list - e.g. graphics, audio, video, text etc
- Test plan that contains the tests they will use to test the website
- Brief summary of the legal and ethical considerations.

Back to Index

Q4) - Unit 1 – Exam question Technique

Can you please advise, when marking student work in the exam if students are asked for 2 facts e.g. 2 impacts of... if the student identified more than 2, would the assessor mark the first 2 identified or any 2 correct answers?

Q4 Answer:
Examiners look at the question overall when marking. If a question asks learner to state 2 impacts of xyz and the learner gives a correct answer, followed by an incorrect answer and then gives a third correct answer, they would still get 2 marks because they have stated 2 correct points within the whole answer.

If this was worth 4 marks the learner would get 2 marks and would only get the other 2 marks for providing linked responses to their first 2 points without repeating themselves.

Back to Index

Q5) - Unit 4 – Features and characteristics of programming languages

Regarding Unit 4 Programming on the Level 3 Specification. For section A3 on the Specification Features and characteristics of programming languages, can I ask for some clarification please?
For the section of the specification – Essential Information for assessment decisions for Learning aim A and the pass criteria, it states; 'They will explain the range of programming languages available, as given in the unit content'

Does this mean that they have to cover all the types of languages and examples from the subject content e.g. do they have to cover all 5 bullet points from procedural to mark-up with examples of each?

Q5 Answer:
Learners will need to know about all the different types of programming languages listed on the spec:

- Procedural
- Object-Oriented
- Event-Driven
- Machine
- Mark-Up

They don't however need to talk about all of the different programming languages listed. If they could refer to one programming language for each type of programming language (e.g. Procedural - Python) that will be enough.

Back to Index

Q6) - Unit 6 - JavaScript expectations

B2, C1 and C2 it all seems quite possible, however I do have a question about JavaScript. I can't imagine that you expect students to be writing JavaScript from scratch as there is no way that you could teach HTML/CSS and JavaScript in the time period allowed. I am assuming that the idea is that students take JavaScript snippets from the web and then drop them into their code and adapt. How many different snippets would be required to enable a student to access Distinction level marks. Would you be able to provide any further guidance on how much code is necessary to satisfy C1?

Q6 Answer:
It may be a good idea for learners to use the headings listed in sections B2, C1 and C2 of the spec as headings in their assignment and then put the evidence under each heading to make it obvious.

In terms of JavaScript, there is no requirement for learners to write this from scratch as it goes way beyond the unit (unless learners can and want to). The unit is about learning about good website design and then to be able to design a website that follows these principles.

Your idea of students taking JavaScript snippets of code and then dropping them into their website and adapting these is good. Just be careful that learners acknowledge where they have taken this code from as an SV may mistake this for malpractice.

In terms of how many snippets of code, there is no definitive answer in the specification. The key is that any code they add to the website supports the user requirements and not simply just adding it for the sake of adding it. I always think you are safe with around 3 snippets of code.

Back to Index

Q7) - Unit 6 – Client-side scripting

RE: C1 - Client-side scripting languages
Students are using Macromedia Dreamweaver to design their website - how will they include/evidence the above section?

Q7 Answer:
C1 is a section of the specification that needs to be taught but not assessed. The assessment criteria and

further information for teachers and assessors section of the specification does not reference client-side scripting languages and therefore these do not need to be built into their websites or included in their assignments.

Back to Index

Q8) - Unit 4 – Example code requirements

I am teaching Unit 4 Programming from the new BTEC National Foundation Diploma in Information Technology Level 3 qualification and I have a few queries relating to the authorised assignment brief that is available on the Pearson qualification page.

In task 1 in the penultimate bullet point states: “analyse the application of logic to program design considering the principles of mathematical and propositional logic, the use of sets and iteration.” I am a little unclear what is expected here. I know that it relates to A5 in the spec (“Principles of logic applied to program design.”) but I am not sure what is expected for the “analyse” part.

Is it expected that the samples of program code and developed applications would contain an example that they could analyse? E.g. confirm that a user has access to a certain document? The learner would then analyse how effective the use of mathematical logic, propositional dynamic logic and use of sets would be applied to the design of the program?

I am also a little unsure how simple or complex the samples of program code and developed applications should be. Do they have to be complete programs? Or could they be particular functions / procedures? Or should there be a mixture? Do you have any examples?

Q8 Answer:
Firstly, the code that learners are given needs to be long enough to be able to analyse it. The code does not need to be for a complete program. The code could be for a set of user requirements but not all. Secondly, the statement that reads 'analyse the application of logic to program design considering the principles of mathematical and propositional logic, the use of sets and iteration” is largely assessing section A5 of the specification.

Here are some ideas of different areas the student would analyse:
1. Is the use of iteration effective? Does it reduce the amount of code and improve efficiency? Is the correct loop used (e.g. FOR, WHILE etc)? Is there a break statement? What does it do? Is it appropriate? Is there an infinite while loop that cannot be broken? How could iteration be used better?

2. Is the use of sets effective? Are the properties of a set suitable for the tasks (e.g. single data type, data not kept in entry order?) Would another method have been better (e.g. records, arrays, lists)?

Back to Index

Q9) - Unit 1 – Flowchart requirements

As a result of the flowchart in the exemplar answer – can you confirm or otherwise whether students are required to know how to construct flowcharts and if, yes, the range of symbols they must know e.g. do they

need to know about the sub-procedure symbol? I cannot find reference to the flowchart requirement in the specification.

Q9 Answer:

If you look at the 'Key terms typically used in assessment' section of the Unit 1 specification, the command word for draw says 'Learners represent understanding through the use of a diagram or flowchart.' Therefore learners could be asked to draw a flowchart in the exam. It is worth noting that the flowchart for question 2f in the SAM gives marks for the use of decisions and logic and not for the correct use of symbols. However it is always good practice to use the BSC symbols. I have referenced these using this link: https://www.scribd.com/document/289314597/Flowchart-Symbols

In terms of the second part of your question, I think they need to know sub procedures as these play a big role in the efficiency of computer systems.

Back to Index

Q10) - Unit 1 – Productivity Applications

Productivity Applications are mentioned in the specifications? However, using the Pearson books: ISBN 978-1-292-14041-4 and ISBN 978-1-292-15036-9, neither mention these types if applications.
What comes close is office applications only. However, even the benefits are not all that is listed in the specification.
Exam Question:

3 (a) Orla uses a suite of productivity applications to interrogate, analyse and present the data collected.

Analyse the benefits to Orla of using a suite of productivity applications to perform these tasks.

6 marks

With mark scheme:

Question number	Indicative content
3 a)	Answers will be credited according to the learner's demonstration of knowledge and understanding of the material, using the indicative content and levels descriptors below. The indicative content that follows is not prescriptive. Answers may cover some/all of the indicative content but should be rewarded for other relevant answers. Learners should consider how using a suite of productivity applications will be beneficial when interrogating, analysing and presenting data. • Ability to share data/link objects between programs. • Integration of features between programs in the suite, improving efficiency/work flow. • File compatibility – sharing data between programs and sharing with others when presenting. A popular 'off-the-shelf' suite is likely to use common file formats that would be compatible with a number of other programs, which is helpful when data is shared with others to manipulate. • Ease of set up, shared/common settings between programs. Customised settings can be applied to all products in the suite, instead of in each individual program. • Software updates – when one product in the suite is updated, it is likely that all products will receive a similar update (especially security and performance updates). Updates are less likely to cause issues with other programs in the suite, as the developers will usually ensure that the update is tested within the suite and not just on a standalone product. • Ease of use – commonality between terminology, layout and menu systems improve efficiency of use, and makes subsequent programs in the suite easier to learn. Do not accept answers that relate to cost.

Q10 Answer:
This exam paper was used in the Sample Marked Learner Work (SMLW) which was produced by the lead examiner for this unit. If you look at page 31 of the SMLW, it states 'Question 3 (a) focuses on topic A3: Computer software in an IT system and the concepts and implications of the use of, and relationships between, hardware and software that form large- and small-scale IT systems and their impact on individuals and organisations. Application software factors affecting the choice, use and performance of application software.'
It is also worth noting that the answers in the mark scheme are only there as examples. When examiners are trained they are told to accept other answers that are not in the mark scheme that are correct.

Back to Index

Q11) - Unit 6 – Website comparisons

For learning aim A, students are required to write a report about two websites. Do both websites need to come from the same category of site? - such as two e-commerce sites?

Also, is it a problem if a number of students use the same websites for their report?

Q11 Answer:
There is no mention anywhere in the specification for Unit 6 that the websites need to come from the same category so therefore you can assume that they don't need to be.

It is not a problem if a number of students use the same website for their report, as long as the learner work is their own. If it was a group of students all looking at and discussing the same website and writing their assignment then this could break the control rules. If you have given a group of students a website to evaluate and they have done this on their own then that is fine.

Back to Index

Q12) - Unit 9 – Classification of SDLC models

Please provide some clarification regarding the SDLC models in Unit 9. In the specification they are classified as predictive and adaptive models. In P1, they are classified as sequential and iterative.
Please could you confirm which models are sequential and which ones are iterative.
I assume sequential are Waterfall, Spiral, V-Model and Iterative Agile, DSDM. Am I correct? To which classification do RAD and Prototyping belong ?
May students use the v-Model as one of the sequential models ?

Q12 Answer:
The methodologies have lots of crossover. Some methodologies could be used in a purely linear format and some as an interactive format. However, some, depending on how they are used, could be both. If you want to put them into a category that best matches their use then I would recommend the methodologies that would be classed as sequential would be Waterfall and V-Model. The methodologies that would be classed as iterative would be Spiral, Agile, DSDM and RAD. Prototyping could be used in either.

Back to Index

Q13) – Will GDPR be accounted for in this qualification

Now that new GDPR legislation is out how will this be accounted for in this qualification.

Q13 Answer:
For the time being, continue to use the Data Protection Act. Further guidance will be released by Pearson. This is likely to be on the sector update that will be released after the summer 2018 exam series. However if students have been taught GDPR and are including this in their exam papers then credit will always be given.

Back to Index

Q14) – Unit 5 - How to evidence responsibility, time management and decisions

The last bullet point on the check list says :
Evidence that you have shown individual responsibility, effective time-management and made high-quality justified recommendations and decisions.

I have also copied down the last part of the task from the Authorised Assignment Brief
For example, you need to show how you have:

- Planned and managed your time and met targets.
- Reviewed and responded to outcomes including the use of feedback from others
- Behaved appropriately while completing the assignment – including professionalism, etiquette, supportive of others, timely and appropriate leadership, accountability and individual responsibility
- Evaluated outcomes to help inform high-quality justified recommendations and decisions
- Used appropriate methods of communication effectively

I can envisage how to provide evidence for the first and last two bullet points however can you help me with the third?

Q14 Answer:
The evidence that you are referring to is towards BC.D3. Learners there need to show:
Individual Responsibility, evidence could include:

- Students working on their own
- Students meeting assignment deadlines
- Students being focused and solving problems on their own
- Students carrying out additional / wider research on the internet

Creativity, evidence could include:

- Coming up with a spreadsheet that solves the problem
- Presentation methods allow the data to be easily understood
- Learners able to use tools / features that they have not used before

Effective Self Management , evidence could include:

- Setting an action plan
- Reviewing their time place
- Evaluating their spreadsheet and their own skills

The assessment criteria for BC.D3 is in all units. Therefore, the evidence needs to be taken within the unit you are assessing. Not all of this must be evidenced in the learner work. You can put together a witness statement.

Back to Index

Q15) – Unit 11 – What is meant by 'Threat title'

For unit 11 can you clarify what is meant exactly by 'Threat title' for part A, when doing the risk assessment for the network. Also In the new template learners no longer need to identify if it is internal/external or implied etc is that correct?

Q15 Answer:
A threat can be anything that is listed in the specification in section A1. The threat title is simply a short description of the threat.

For example:

- Remote access method likely to be attacked.
- Internet connection likely to be attacked.
- Network access by mobile devices can be an attack vector.

Yes, they are not directly required to, however, it would be good practice for learners to include this information in the 'explanation of the threat in context' section of the template.

Back to Index

Q16) – Unit 1 – What is the Police and Justice Act 2006 (Computer Misuse)

In the Unit 1 specification - topic F there is a bullet point item for the Police and Justice Act 2006 (Computer Misuse). Having been through this section and covered DPA, CMA, Copyright etc – the only reference I can find from the government website about the P&JA2006 is a reference to the Computer Misuse Act.

What is it you want the students to know about the Police & Justice Act as I don't understand what relevance this has when it only refers to the Computer Misuse Act.

Q16 Answer:
There is a lot of crossover between the Computer Misuse Act 1990 and Police and Justice Act 2006. Here is some information from http://complianceandprivacy.com/News-Eversheds-e80-Computer-misuse-act.html that may be interesting.

Computer misuse has traditionally been covered by the Computer Misuse Act 1990 (CMA) which sets out two key offences:

- unauthorised access to computer programs or data (i.e. hacking), together with a more serious version of the offence if the hacking is carried out with an intent to commit or facilitate further offences; and
- unauthorised modification of computer material.

However, the Police and Justice Act 2006 (PJA) introduces amendments to the CMA aimed at bringing it up to date with the latest developments in computer crime and imposing tougher penalties.

The PJA will replace the offence of unauthorised modification of computer material with one that is wider in scope. The replacement offence imposes criminal liability on a person who:

- knowingly commits an unauthorised act in relation to a computer; or
- intends to perform such an act; or
- is reckless as to whether he might be performing such an act.

The offence is committed where the effect of the unauthorised act is that it:

- impairs the operation of any computer;
- prevents or hinders access to any program or data held in any computer; or
- impairs the operation of any such program or the reliability of any such data.

Back to Index

Q17) – Unit 6 – Command word clarification

Please clarify the difference between the command verbs compare, analyse, evaluate and provide examples for P1, M1, D1, I have looked at the command verbs but am still unclear

Q17 Answer:
Compare - Learners identify a feature (e.g. colour) and then give a description of what that feature looks like / how it's used on both items (e.g. on two different websites). They then need to say how the feature is the same or different across both items.

Analyse - Learners identify different features and then explore them separately but then start to make links between and if necessary, start to pick out the key trends. They may be able to say why a certain feature has been used for a particular situation.

Evaluate - Learners start to look at how effective something is. For example, if they looked at the use of colour, they would then start to discuss how effectively it has been used (advantages,) how ineffectively it been used (disadvantages) and how it could have been used better (alternatives). This does require a conclusion that is supported by their written work.

Back to Index

Q18) – Unit 11 – What is Storage Defined Networking?

In the specification for this unit and in section B1 there is reference to Storage Defined Networking. There is no reference online to this term. Can you help clarify what the term means?

Q18 Answer:
This is under the bullet point 'Modern Trends' on the specification. It may be better to think of this as a Storage Area Network (SAN) rather than a Storage-Defined Network.

This website may be of help.

Back to Index

Q19) – Unit 6 – General Unit 6 Questions?

The following questions have been raised while we are looking to start delivery of this unit can you help?
Does the website need to be made through HTML code?
Do students need to use CSS Styles to achieve the high marks?
Is there a minimum number of pages that you recommend students to create?
Do you expect students to use a range of multimedia elements?
Can students use pre-made templates and then amend and alter to meet their client's needs?
Are students required to add an interactive working form?
Does the website need hosting once completed?

Q19 Answer:
In terms of unit 6, the focus is about good website design and not writing web code. Learners need to show that they have an awareness of HTML, CSS and Javascript. They could create a couple of buttons and write some code for it. There is lots of HTML code on the internet for them to add extra features to their website such as timers, hit counters etc which they could copy into their website and then edit it. Students don't need to create their content. They can use content that already exists and are expected to reference everything that they use. They may however choose to edit it first.

- Does the website need to be made through HTML code?
  No, learners need to have some awareness of it. This could be changing some of the HTML code or copy and pasting HTML code into their website. There are many pre-made blocks of HTML code on the internet which they can copy into their website.
- Do students need to use CSS Styles to achieve the high marks?
  Not necessarily, however CSS is quite important and it shows a greater level of complexity for the merit and distinction grades.
- Is there a minimum number of pages that you recommend students to create?
  There is no minimum however I would have thought to make the website functional that it will need at least 4 pages. Remember that it needs to fit the needs of the assignment brief used for assessment and to evidence sufficiently the assessment criteria.
- Do you expect students to use a range of multimedia elements?
  Learners should use these where they are necessary for audience and purpose. Text and images would at least be expected on all pages. Learners should be encouraged to have sound/videos somewhere on the website.
- Can students use pre-made templates and then amend and alter to meet their client's needs?
  They can, as long as the templates are a guide and don't complete a large part of the website for them. Rich templates which provide too much In the way of style and content should be avoided.
- Are students required to add an interactive working form?
  Yes, the easiest way to do this is to have a form and then email the results of the data directly to the learner.
- Does the website need hosting once completed?
  No, although clearly this would benefit learners if they could do this, but not a requirement

Back to Index

Q20) – Unit 4 – Can students use Scratch?

Kindly confirm in respect of the Unit 4. Students want to know if they are allowed to use Scratch (https://scratch.mit.edu/) to provide the solution to the task.
Scratch is a popular basic level graphical interface environment, which some students prefer to use.

Q20 Answer:
For Unit 4: Programming Learning aim A, learners will provide an evaluation of the identified programming languages examples can be taken from:
A3 Features and characteristics of programming languages
The uses and applications of different types of high and low-level programming languages developed to assist in the solution of particular problems, such as:
o procedural, e.g. C, Perl®, PythonTM
o object-orientated, e.g. C++, C#®, Java®
o event-driven, e.g. Visual Basic®
o machine, e.g. Assembler
o mark-up, e.g. HTML

Although Scratch is popular it is a basic language, it has limited features and functionality, at level 3 it might not allow the learners access to all of the assessment requirements.

For Learning aim B and C, the best language to use would be Python, a lot of centres use this language and it's a good teaching language. Any programming language that allows the learner access to the unit requirements is acceptable. The unit specification will provide further guidance on the functionality requirements of the programme.

Back to Index

Q21) – Unit 11 – Part A Task 3 clarification

For Part A Task 3 of the Cyber Security & Incident Management assessment students need to do:

- an assessment of the appropriateness of your protection measures
- a consideration of alternative protection measures that could be used
- a rationale for choosing your protection measures over the alternatives

For each of the protection measures identified.
However, the sample marked work confuses the situation for me. The good work example on task 3 seems to identify two requirements (which haven't been identified in previous tasks) and then identified protection measures for these two requirements.

Could you clarify exactly what is expected on this particular task.

Q21 Answer:
The two requirements identified in the 'Good response' for Part A Task 3 are effectively a summation of the work they have submitted for Task 1 & Task 2. This is perfectly acceptable.
The candidate has provided:

- an assessment of the appropriateness of your protection measures
- a consideration of alternative protection measures that could be used

- a rationale for choosing your protection measures over the alternatives.

It is also worth pointing out that there is nothing in the MS that forbids adding extras at this point. It's self-penalising as they spend time on the extras, but it's not an indicator for marking them down

Back to Index

Q22) – Unit 4 – Exemplar code

I am struggling to find exemplar material for them to look at can you help?

Q22 Answer:
Unit 4: Programming
Learners will need access to a bank of programs and code bases written in a range of languages for several different purposes.
A3 Features and characteristics of programming languages such as:

- procedural, e.g. C, Perl®, PythonTM https://www.practicepython.org/
- object-orientated, e.g. C++, C#®, Java® www.tutorialspoint.com
- event-driven, e.g. Visual Basic® http://www.computing.outwood.com/NEA/vb/programming-vb.html
- machine, e.g. Assembler https://www.ibm.com/support/knowledgecenter/en/SSLTBW_2.3.0/com.ibm.zos.v2r3.gim2000/apismpa.htm
- mark-up, e.g. HTML https://www.w3schools.com/html/html_examples.asp, http://www-db.deis.unibo.it/courses/TW/DOCS/w3schools/website/web_spa_homepage.asp.html

The code base used by learners in their investigation must be of sufficient complexity to allow analysis of the implementation of a range of programming constructs, including standard and language-specific techniques, logical structures and mathematical principles.

Quality will be considered in terms of the degree to which user requirements are met, the robustness of the code, its maintainability, efficiency, portability and ease of use.

Back to Index

Q23) – Unit 9 – Exemplar material

I am struggling to find exemplar material for Unit 9 to share with my students - can you help?

Q23 Answer:

Unit 9: Project Management

The IT projects for this unit could be either real life, that would be ideal, but they could also be case studies provided by the teacher.

The British Computer Society has a range of real case studies of IT projects
https://www.bcs.org/
https://bcs.org/upload/pdf/casestudy.pdf

Project Management Institute also has a range of real case studies of IT projects
www.pmi.org

An example of the use of Waterfall methodology to complete a project.
http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.psjd-147cf253-fc47-453e-850a-49d972c8de40

An example of the use of Agile to complete a project.
https://www.excellarate.com/blogs/4-examples-of-agile-in-non-technology-businesses/

An example of the use of RAD to complete a project.
https://teaching.csse.uwa.edu.au/units/CITS3200/project/RAD%20Examples.htm

example projects that you may find interesting.
https://www.tatasteeleurope.com/ts/construction/case-studies/swalec-smart-energy-centre
https://sseenterprise.co.uk/insights/case-studies/
http://damiantgordon.com/Methodologies/Papers/Rapid%20Application%20Development%20RAD%20An%20Empirical%20Review.pdf

These websites have some other suggestions:
https://www.guvi.in/blogs/top-30-mini-project-ideas-for-college-students/
https://appliedtech.iit.edu/information-technology-and-management/current-students/student-projects

If you select three you could link each to the PM principal. If you are thinking of creating your own bank of case studies based on three different methodologies the case studies themselves should be compact. The aim is that the learner is given the opportunity to evaluate three different projects delivered using different project management methodologies as covered in the unit content.

They will need to be quite detailed, to ensure students have enough to evaluate, etc.

- characteristics of different methodologies applied in IT project
- management structures applied in different IT projects

The project management section should allow the learner to cover a comprehensive range of benefits and limitations of using the identified methodology based, the structures used in the delivery of the project, and how they play an important role in the management of the project, given the context with a clear conclusion.

The Essential information for assessment decisions provides some guidance on this area.

Back to Index

Q24) – Unit 1 – GDPR & current legislation

Please can you confirm what data protection legislation could potentially be covered in the Level 3 Unit 1 BTEC exam (Information Technology Systems) in please.

Do we need to teach our students about the out of data DPA as per course resources or should they know about GDPR?

Q24 Answer:
The Specification requires earners to cover the 'role of current legislation (and subsequent additions and amendments) in protecting users from attack and misuse'.
As GDPR falls under 'current legislation' it will be incumbent on centres to cover this.

Back to Index

Q25) – Unit 9 - Assignment Brief for LA-B&C

Is there any further guidance on Unit 9 – Project Management, with authorised assignment for LA-B&C.
The task suggests usage of Unit 4 as their project, but the first point then requires:

- Research and evaluate two possible solutions to the IT problem, identifying and evaluating the project risks and constraints and suggest viable methods of controlling the risks.

Aside from the solution created in Unit 4 – how different does the alternative possible solution need to be? Does it imply simply a different interface for the application, or different as in a mobile app-based solution?

Q25 Answer:
Learning aim B: Carry out a project initiation for an IT project
The specification that scopes out the alternative technical solutions, including:

- graphic solutions, e.g. sketches, diagrams, photographs and storyboards
- an outline of the required processes, e.g. information, systems, assemblies, a high-level flow chart
- an outline of costings, e.g. spreadsheet, material cost, budgets
- initial technical information e.g. outline performance parameters.

A different interface for the application, as a mobile app-based solution would also work.

It should be at least two realistic alternative solutions to an IT problem. The evidence will be at a consistent breadth and depth. It will identify and evaluate the project risks and constraints and suggest viable methods of controlling the risks. For example, for a simulated IT project, learners might identify the lack of skilled resource in the development team as a risk and might identify the need to recruit an experienced developer to lead the development. They would also recognise that this initial cost would be offset if the project is successfully completed. A range of criteria will allow a good evaluation of the solutions and the justification of the preferred solution will be supported by logical chains of reasoning.

Learning aim C: Carry out the planning, execution and monitoring, controlling of an IT project, using an appropriate methodology

The learner should perform consistent and effective project management processes using an appropriate methodology. For example, for a simulated IT project, learners might produce an initial software requirements specification that outlines the functional and non-functional requirements of the project. Using the agile methodology, they would then produce user stories that facilitate planning of time and resource required to complete the work.

Back to Index

Q26) – Unit 1 – June 2018 paper Q3 clarification

Do they have to draw images of the devices etc. or are labelled boxes enough?
Question 3bii - the mark scheme states advantages only. Would disadvantages be acceptable e.g. technical issues?

Q26 Answer:
There is no requirement for a candidate to draw images, labelled boxes would suffice.
Q3b - it is expected that in this instance the impacts would be positive. Technical issues could arise with any system being used

Back to Index

Q27) – Unit 7 – What is meant by 'current technologies'

Please explain the statement from the essential information for assessment decisions (LA-A Pass)
"Learners will explain how the technologies currently available on mobile platforms affect the ways in which an app is designed and implemented. The learner will support their explanations with examples from the Identified apps."
What is meant by the current technologies

- Do you look for a student to provide an explanation of pros and cons for each of the mobile platform technologies – native/hybrid/web based?
- Or shall the students discuss development framework (e.g Koltin, Xamrine RhoMobile Suite).

Q27 Answer:
To achieve 7/ A.D1 the learner is required to provide a clear and balanced evaluation " strengths or weaknesses or advantages or disadvantages" = pros and cons of any 2 mobile platform technologies native/hybrid/web-based (A1)

They do not have to evaluate development frameworks the focus should be sufficient coverage of

- A2 Context of mobile apps
- A3 Mobile device integration
- A4 Mobile app programming

Back to Index

Q28) – Unit 1 – Flow Chart symbols

Sept 2016 paper reference 31760H has a section of questions about Josie and it is 2F. Students must produce a flow chart process to show the password setting up procedure. We have covered data flow but cannot see where in the specification data flow or flowchart symbols are referenced.

Q28 Answer:
Candidates are not expected to be able to use data flow chart symbols. However, they are expected to be able to produce a flow chart to show understanding. There is no requirement for candidates to use any formal conventions for drawing diagrams. They can use any format to convey their understanding of the problem/scenario presented. Guidance on what should be covered is given in each question.

This is mentioned on the final page of the Unit 1 Specification where command words / terms are defined i.e. 'Draw - Learners represent understanding through the use of a diagram or flowchart'.

Back to Index

Q29) – Unit 10 – Data to use for analysis

With reference to the authorised assignment brief (AAB) for the Big Data and Business Analysis unit, which covers learning aim B. Having read through the assignment brief and looked at the table from the link (https://www.gov.uk/government/statistics/gcse-and-equivalent-results-in-england-2012-to-2013-revised), It is not clear what data should be used to perform the correlation and regression analysis. In the data referenced 'achievement' is given as percentages along with the number of pupils and it is separated into local authorities.

Could we get some clarification on what data/variables should be used for the correlation and the regression analysis?

Q29 Answer:
To achieve learning aim B, the learner is required to use a statistical software tool to solve a problem.

The AAB is referencing "how GCSE results in England differ by Local Authority and also by gender", however, any interrogation of the data would be acceptable as long as it allows the learner to access to the criterion requirement and provides sufficient coverage of B1, B2 and B3.

For clarity, as the AAB link has a variety of big data banks, have you considered interrogating the data banks to see what data can be manipulated and reported on easily. You could then clarify or be more specific on the data to be investigated and update the question in the scenario.

Centres are free to modify the scenario to suit centre needs. However, I would ask your Internal Verifier to ensure that the brief is fit for purpose or send the modified assignment brief to the Assignment Checking Service so that they can confirm that the brief allows the learner to access Learning aim B requirements.

Back to Index

Q30) – Unit 8 – P1/P2 clarification

P1 says Explain social and technological trends of computer games.
However, the spec content only discusses social trends. It does discuss technology used, but not trends. Are the students expected to cover trends in each of the areas identified in that technology part, despite not being about trends?

P2 says Explain how current and emerging technologies impact computer games' design and development. That seems fairly straightforward, it basically requires going through each part of the "Technologies in computer gaming" part and discussing how each area has an impact on game dev.

However, the "Essential information for assessment decisions" says "learners will provide descriptions of how current and emerging technologies in gaming impact on the users and the games industry.". Where has the user part of this come from? It doesn't seem to relate to the criteria which is talking about design & development, not it's impact on users which is quite different.

Q30 Answer:
For the learner to achieve 8/A. P1 and 8/A. P2 we are looking for sufficient unit coverage of A1 Social trends in computer gaming and A2 Technologies used in computer gaming.

As you have identified, the specification content does list social trends (A1) and technology used (A2) it was envisaged that technology trends would be a part of the explanation.

For a pass standard, as long as the learner has explained how current and emerging technologies impact computer games' design and development, pass standard can be awarded.

Back to Index