Examiners' Report January 2009

Principal Learning

Information Technology

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Level 1 Unit 1 Technology in Organisations

General Issues

Given that this was the first examination for this qualification it was very pleasing to see the high standard achieved by the learners, the vast majority gaining over 50% of the marks.

Unfortunately some learners failed to gain marks by failing to attempt all of the questions, others selected more than one response for one mark answers.

Learners should be made aware that they are not penalised for incorrect answers, therefore an attempt should be made to answer **all** questions, and that the number of marks given is indicative of the number of responses that are required.

The specification clearly states in 'About This Unit' that learners '…will investigate some of the technology systems used in business.' and '..will learn about the key components of technology systems including hardware, software, communication and networks.' Learners need to know not just what the components are but how they work together to create the technology system.

Responses to individual questions

Learners, perhaps unsurprisingly, did particularly well in the 'picture' questions Q1(a) and Q3 (a).

Q2 (a) Even at Level 1 it was disappointing to see a large number of learners failing to achieve full marks for this question, despite the components being listed under these headings within the specification.

Q4 (a) Although a significant number scored full marks in this question many failed to achieve any marks, even missing the obvious 'anti-virus' response.

The following list shows very common incorrect responses for some questions.
Q1 (c) - improved security
Q1 (e) - write your password down
Q3 (b) – item price
Q4 (c) – music is always free to download.

Principal Learning Information Technology
Level 1 Unit 5 Database Systems

All learners created a database structure and most created very useful and interesting data entry forms. Most made some attempt at customisation. All learners entered, edited and deleted records but very few entered them accurately – general spelling errors, use of incorrect case, no spaces etc.

Some learners included very helpful annotation to inform the moderator of what was being evidenced at any time. This is to be recommended.

Very few assessors made use of annotation and they did not identify data entry errors.

Some centres carried out an internal moderation and provided evidence on the candidate record sheet.

When using centre based assessments centres should ensure the wording/language is appropriate for this level of learner. If providing data for learners, the centre should ensure it is correct.

The 'Guidance for allocating marks' document states, in LO.2, that information is retrieved using simple searches and sorts. In some instances only one sort was evidenced.

Most learners made good use of reports to present their findings.

There was limited evidence to inform the moderator of any guidance or independent working. It is advised that a comment on the candidate record sheet is added to let the moderator know how much support has been provided.

The Centre Guidance document, available on the Edexcel Diploma website states clearly how work should be presented for moderation – both paper based and electronic. It also includes information on what documentation should be used. If work is submitted electronically it must be clearly presented so the moderator can see the evidence presented.

Principal Learning Information Technology
Level 2 Unit 1 The Potential of Technology

General Issues

As with IT101, it was very pleasing to see the high standard achieved by the learners with the vast majority gaining over 50% of the marks. Learners should attempt all parts of the questions but not select more than one response for one mark answers.

In the 'About This Unit' section of the specification, it is clearly stated that learners '...will find out about components of technology systems – what they do and how they work......'. Learners need to know what the individual components are and how they work together to create the technology system.

Responses to individual questions

Question 1 was generally well answered with a significant number gaining in excess of 7 marks. However learners were generally unsure where data is stored on a card or how it is transmitted.

Question 3 produced mixed responses; whilst the vast majority gained 7 or 8 marks in total, there were a surprising number who failed to achieve all 4 marks for 3(a) and of these a significant number failed to match Anti-virus software to Viruses.

Question 5 proved to be the most demanding for learners with few achieving marks for 5 (a) and 5 (b). Many learners gained 3 of the marks for 5(e) however, a surprising number incorrectly selected 'The increased use of computers has reduced the need to store large amounts of data'.

Question 6 was generally well answered. However at this level it was disappointing to see a significant number of learners who were unable to identify a printer as being the device needed to produce a hard copy.

Learners were in general able to gain good marks for Question 7. 7(c) was either very well answered or learners failed to gain any marks. This may have been due to learners misreading the question and confusing advantages / disadvantages, or employees / employers.

The following list shows very common incorrect responses for some questions.
Q1 (a) The security of customers' personal data will be improved.
Q1 (d) Reply to the email…….
Q2 (e) EPOS systems prevent supermarkets selling-out-of date stock
Q2 (e) When an item is scanned the price is extracted from the barcode…….
Q5 (e) The increased use of computers has reduced the need to store large amounts of data.

Principal Learning Information Technology
Level 2 Unit 2 Exploring Organisations

This was the first occasion on which this unit has been assessed. Centres who submitted work are to be congratulated on managing to make an entry given they had only one term to teach and assess this unit.

The work submitted varied in supporting documentation. If the centre has chosen to use their own assessment task it is essential that one copy of the assessment task as provided to students is supplied with the centre sample. Where the Edexcel sample assessment has been used then this should be indicated so that there is no uncertainty on the task set.

Centre Assessment sheets were generally completed accurately and well. Centres are encouraged to make comments on their awarding decisions and where this had been done it was very helpful in the moderating of the work.

Some centres made good use of consortia employer engagement, using visits or speakers to help initiate and support the assessment exemplars. Unfortunately several centres made use of learner initiated internet research which proved unsatisfactory in giving the depth and detail needed to complete the assessment.

All submissions on this occasion were in the form of a report. It is hoped that in future centres will explore other ways of tackling this assessment potentially to make better use of the learners' various IT skills. Where a report approach is used then it would be expected that learners would make use of a professional report format as is commonly seen in business.

There was little difference noted in the quality of work between centres where all the learners used the same two exemplars for LO1 to LO3, and those where learners used a variety of exemplars. Centres must take great care where the same exemplar is used that learners' work independently to complete their assessments. Centres are reminded that the assessments are not coursework and learners should ideally work under controlled conditions.

The evidence for LO1- LO3 varied considerably. At best, learners identified objectives for the organisation and focused on the appropriate technology and how it related to the business objectives and processes. It would help learners if they are reminded that 66% of the marks arise from LO2 and LO3 and their work should reflect this. Unfortunately there were some examples of work where learners had limited understanding of the purpose of the assessment and this showed in their reports. Technology used in business should feature strongly in the assessment and where information on the nature and purpose of technology used in an organisation was limited learners struggled to produce a good report.

The evidence for LO4 was incorrectly presented by many learners. The focus of this section was on recommendations for a successful business to be supported by evidence from playing the business simulation game. Many learners however opened the task with a lengthy account of playing the game and finished with a brief consideration of the business success factors and thus gained limited credit. A variety of business simulation games, computer or paper based, may be played, and use can be made of popular simulation games that draw out suitable business principles. It is not appropriate however for learners to engage in a simulated enterprise activity.

Overall assessment was clearly related to the published assessment criteria although centres are encouraged to make full use of the additional assessment guidance in the specification to help in their assessment decisions.

Principal Learning Information Technology
Level 3 Unit 1 The Potential of Technology

The work received from centres for this unit included some examples containing elements of work created to a good standard and showed a good technical understanding for this level.

Centre assessors should focus on "What you need to cover" (WYNToC) "Guidance for allocating marks" and the "Marking grids" prior to assessment and when allocating marks.

Clarification of why marks were awarded to learners together with annotated comments on learners work would be beneficial to the moderation process.

Assessment briefs should not be too prescriptive and must allow depth of exploration and analysis. They must also evidence the quantitative details required by the specification.

LO.1 Role of technology systems

Some learners provided detailed definition of Legacy systems & Emerging technologies but failed to identify what role they play in helping organisation achieve specific objectives or goals.

It was felt that some learners lacked sufficient detail of the Legacy systems & Emerging technologies with reference to the key terminology in the WYNToC, such as detail of hardware, software and data compatibility.

To achieve full marks the learners must have given a full explanation, illustrated with well-chosen examples from three different sectors, for example public, private, not-for profit or voluntary.

In this section It was felt that the learners had demonstrated a greater understanding of Emerging technologies than Legacy systems focusing on technologies such as mashups, location-aware applications, virtualisation, nanotechnology, RFID, VoIP, social software. However they failed to identify what role they play in helping organisation achieve objectives or goals.

Good practice
Some learners provided a very detailed and technical overview of the functions of the Legacy systems & Emerging technologies and demonstrated a good technical understanding for this level.

Problems seen
Some learners provided detailed definition of Legacy systems & Emerging technologies but failed to identify what role they play in helping organisations achieve their goals.

Learners had given an explanation of the function of the Legacy system but had not fully explained hardware, software, and data issues. A full explanation is required on such issues of obsolete hard to repair/replace, software programme, compatibility, documentation problems & data transfer, portability format, compatibility etc.

Organisational objectives or goals were not clearly identified, for example maximise profit, enhance efficiency, improve competitiveness and enhance customer service. It was therefore difficult for the learners to illustrate how the Legacy system and Emerging technologies were used to achieve these goals. The consideration of wide, generic goals is not helpful for learners to provide specific understanding of the impact of Legacy System or Emerging Technology.

Some organisational examples were taken from the same sector. The examples should be taken from three different sectors for example public, private not-for profit or voluntary - manufacturing, transport, and finance.

LO.2 & LO.3 Use of technology

Learners had more success in this section. They focused and gave several relevant and current examples of technology and how they were being used to innovate.

Some learners' work showed a good technical understanding of how organisations use technology to innovate.

Learners did not demonstrate a sound understanding and fully assess the impact of the innovations. More discussion is required on how organisations and individuals innovate through and with technology, focusing on the quantitative requirements of the WYNToC and "Guidance for allocating marks" for example

- to improve competitiveness (e.g. web presence, online ordering, improved communication, automation, product miniaturisation)
- to improve service (e.g. customer relationship management, online ordering, webinars, forums)
- to reduce carbon footprint (e.g. hibernation when not in use, double-sided printing, automated building management

Good practice
Good examples of technology based innovations used by organisations.

Problems seen
To achieve full marks, the learner must identify at least three well chosen examples- both successful and unsuccessful, of organisations and individuals using technology to innovate. For example how technology based innovations have been used successfully by individuals and organisation and how the exploration of technology has led to a failure in a project within different organisations or individual uses. Some learners had not identified how individuals can innovate through the use of technology enabled systems.

There was a lack of clear consideration as to the impact on competitiveness and service and how the technology factors contributed to their success or failure.

LO.4 & LO.5 Technology enabled solutions

Learners made some attempt to evaluate the benefits of introducing one innovative technology enabled system for two contrasting organisations. However to achieve full marks the learners must have presented a set of well reasoned recommendations for each of the two organisations. There should be a full assessment of the benefits and risks of each recommendation.

This was a missed opportunity for the learners to optimize the 25 marks available for these Learning objectives.

Centre assessors should focus on "What you need to cover" (WYNToC) "Guidance for allocating marks" and the Marking grids when allocating marks.

Good practice
Some learners demonstrated a good understanding of how new technology enabled solutions can help organisations achieve their specific goals. SWOT analysis is effective when used to identify and support conclusions and to present well argued comments about the impact on competitiveness and service to the organisation.

Problems seen
Only one innovative technology-enabled solution presented for each of the organisations this did not allow the learners to optimize the available marks. The specification requires a number of recommendations to be made, relative to the appropriate mark band for example to achieve full marks in Mark band 1 the learner must have presented at least three recommendations for each of the organisations, for Mark band 2 a set of recommendations and for Mark band 3 a set of well-reasoned recommendations.

The set must be more than the three recommendations to fully achieve Mark Band 1. To achieve full marks for Mark Band 2, the learner must have presented a set of recommendations for each of the organisations, taking account of benefits and risks. A set can be seen as a collection of holistic recommendations that supports the organisation requirements. To achieve full marks for Mark Band 3, the learner must have presented a full set of well-reasoned innovative technology enabled recommendations that fully support the requirements for each of the organisations, fully assessing benefits and risks.

Learners' work did not fully assess the possible role of the new technology, for example underpins business processes, safeguards business continuity, drives performance improvements and facilitates decision making.

The learners did not fully assess the possible objectives of the new technology, for example to increase sales/revenue, to improve service and to gain a competitive advantage.

Learners did not fully assess the possible benefits or opportunities of implementing the new system, for example open up new markets, produce new or improved products or services, cost reduction and outsourcing for each of the proposals.

When making recommendations for the innovative technology enabled systems the learners did not fully assess the benefits and risks to each, for example costs of the technology, over-expansion, staffing issues relating to expertise, redundancy and resentment for each recommendation.

Statistics

Level 1 Unit 1 Technology in Organisations

Grade	Max. Mark	A*	A	B
Boundary mark	45	40	30	21

Level 1 Unit 5 Database Systems

Grade	Max. Mark	A*	A	B
Boundary mark	30	25	18	12

Level 2 Unit 1 The Potential of Technology

Grade	Max. Mark	A*	A	B	C
Boundary mark	60	54	45	37	29

Level 2 Unit 2 Exploring Organisations

Grade	Max. Mark	A*	A	B	C
Boundary mark	60	52	42	32	22

Level 3 Unit 1 The Potential of Technology

Grade	Max. Mark	A*	A	B	E	D	E
Boundary mark	60	52	46	40	34	28	22

Centres are reminded that this is the first examination for this new specification and that coursework boundaries may change in the following series

Notes

Maximum Mark: the mark corresponding to the sum total of the marks shown on the mark scheme or mark grids .

Boundary mark: the minimum mark required by a candidate to qualify for a given grade.