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Moderators' Report/ Principal Moderator Feedback

Summer 2014

Pearson Edexcel GCE Engineering Unit 6935_01

The Engineering Environment

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Unit 6935

The Engineering Environment

Samples were received from most centres in advance of the issued deadline. The associated documentation was included and complete for the majority of centres, although, as in previous series, some centres did not include all/some of the following:

Student Authentication Statements
Mark Allocation Records

Some centres are still using their own version of record sheets for recording student marks. Some of these were unsuitable this year and centres should ensure in advance of assessment, that the correct documentation is used.

Best practice was observed when centres annotated the MAR form and the student work. Some centres were thorough here, with some not annotating the student work at all.

This year, there were many centres that used local companies for the focus of the investigation. The resulting standard of work for this unit was generally better than the linked 6932 unit and the assessment by centres was also more accurate. A number of samples showed that a single visit or presentation was the method of research. Centres are encouraged to build stronger links with local companies in order to give the students a sound opportunity to obtain all the information needed for this unit.

Assessment criterion (a)

Students often provided a good range of standards, although regulations were sometimes weak or missed from this section. Some students tended to focus on explaining and justifying, to try to get the higher marks without considering the real purpose of the standard or regulation and how it impacted on the product. Common across the samples were H&S, RIDOR and COSSH.

Assessment criterion (b)

A range of documents were seen across the samples. Some students discussed the documents at length, but overlooked the clear link to the product. Others focussed on H&S documents only and did not consider working drawings, job schedules and process records. The best examples within the samples were annotated screen shots or scanned documents that explained the purpose clearly and for some, justified why they were used. Students should be encouraged to show the document and be confident enough to annotate them to identify key features.

Assessment criterion (c)

A common theme across this criterion was electrical energy. This was often simply expressed as heating and lighting. Many students overlooked the energy implications for the production system, although there were some samples that described how a particular process was monitored and controlled in order to maximise the efficiency. For this criterion, this is important, and students should be encouraged to consider energy issues other than low energy light bulbs and heating.

Assessment criterion (d)

Environmental concerns were normally well covered, although, in some instances, similar. River and air pollutants were described in addition to recycling systems in factories. Some students provided useful documentation showing how some companies had reduced the waste, or recycled water for other purposes in an attempt to limit the effect on the environment. Other common themes were transport and noise from the factory.

Assessment criterion (e)

A range of technologies were usually evident. The best examples included process/control technologies, job related and office/communication examples. Some students focused only on communication and office technologies and overlooked the essential technologies associated to the manufacture, service or operation of the product. Students should be encouraged to clearly link the technology to the product as this was not evident across all samples.

QWC

The technologies section also provides opportunities for QWC. Centre assessors were identifying this and awarding marks appropriately. Across the samples, a range of specialist terms with good grammar and punctuation was observed.

Assessment criterion (f)

As in 6932, modifications, linked to the evaluations varied. The type of product investigated affected this considerably. A very complex product, with a proven quality history may prove difficult to improve. Some students attempted to modify these with varying success. The best modifications were evident where clear evaluations of the product were seen. These were often supported by diagrams to show how the modification would be achieved. Students at the lower mark bands limited their evidence here, with common modifications such as installing solar power or wind turbines. Whilst these may be useful, the evidence was quite general and would need to show a real benefit to the product or company.

Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:
http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx

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