

Examiners' Report/ Principal Examiner Feedback

Summer 2013

Principal Learning

Manufacturing & Product Design MP101 Paper 01

Introduction to Manufacturing





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Unit MP101_01 Introduction to Manufacturing

General Comments

In this series, students attaining a B grade were expected to be able to answer, correctly, questions 1, 2, 3, 5, 13, 14, 19 and 27. Students were not expected to be able to answer the remaining questions in order to achieve a pass mark. The said questions covered all learning outcomes.

Further, students attaining an A* grade were expected to be able to answer, correctly, all of the questions on the paper, except numbers_8, 10, 12, 15, 16, 17, 18, 20, 26 and 28. These questions required students to have a greater depth of knowledge and to be able to filter the stronger distracter answers.

Questions 1-4 and 11 related to main business processes. Within the context of the specification this is a finite list of nine separate processes. A method that might help students to recall the nature of each process could use a relevant image and a simple sentence describing the process. This could be produced by students as PowerPoint presentations.

Question 5 was about environmental issues. Students need to know about emission controls, energy usage and waste control (recycling). If students are made aware of what these factors are, it is probable their own general knowledge will allow them to be put the information into an accessible context.

Questions 6 and 10 tested students' knowledge of economic issues.

Questions 7 and 9 had the focus of wealth creation. Students need to know about the benefits of creating wealth for a company, the community and the employee. The use of case studies may be an appropriate method to deliver this learning topic.

Questions 8 related to social issues. Students need to know about demographics and transport networks.

Questions 12 - 17 tested students' knowledge of sub-sectors and products. This learning outcome has an extensive list of sectors and products associated with it. Students are likely to be familiar with some sub-sectors, such as bakery; other sub-sectors, such as those that produce technical textiles, may be less well known. It may be appropriate to identify those sectors and products that students are not knowledgeable about and focus teaching sessions to address these. A possible method to teach this content would be through the use of quizzes.

Questions 21, 24 and 25 related to competition. The specification makes it explicit that it is considered that labour costs are cheaper in Asia. For Level 1 students, this simplistic statement provides sufficient depth of knowledge to answer this type of question.

While quality issues may be more complex, there is generally a correlation between the cost of manufacture and the quality of manufacture. Many cut price stores provide suitable artefacts to illustrate this point. It is probable that students will be able to identify where the quality of a product has been reduced to meet a target cost, for example £0.99 or £1.00.

News articles may be a suitable source of information and stimulation to cover the general effect of world trading.

Questions 19, 20 and 22 related to costs. The specification makes the explicit link between 'increased costs = increased selling price = potential loss of business' and 'decreased costs = larger profit margin/increased production' etc. Students should be taught to realise that they need no knowledge of the specific manufacturing sub-sector in order to be able to apply the said principles.

Question 22 had the focus of prices. Students need to consider how regional, national and international factors affect competitors pricing.

Question 18 and 23 were focused on the consideration of costs. Students need to be aware of raw material, labour, packaging, distribution and tooling costs. Centres might prepare their students by ensuring they know what each of these costs relate to. A student that then knows, for example, that distribution means taking goods to a destination, will then be well prepared to answer these types of question.

Questions 26 - 30 required students to perform simple calculations. It may be appropriate for centres to allow the students to practice using calculators on questions of the type that have appeared in previous examination papers. By changing the numbers used in the question, students could increase their familiarity with the processing skills required.

Grade Boundaries

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







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