BRENTWOOD
OPEN LEARNING COLLEGE

Assignment Cover Sheet

Student Name:	Scott Meenagh
Student Number:	31908
Course:	Diploma in Construction Management 4
Assignment NO:	Introduction to Construction Management

Marking Criteria:

We expect the learners to write minimum one well expressed point in three lines against each allocated mark. This means one needs to write 15 lines with 5 well expressed points to get high grades for a 5 marks question.

For high grades use examples and illustrations where appropriate.

Please insert your completed assignment (in word format) here:

1) Give Short Answers to the following questions:

i) What makes the construction industry different from any other industries?

The reason that makes the construction industry different from any other industry is that no two projects are ever the same. Every project is unique, it is defined by the nature of the site of construction and is also influenced by the weather, the ground condition due to various site locations. Also, mainstream Manufacturing industries tends to be mobile during value addition, but construction industry is normally stationary.

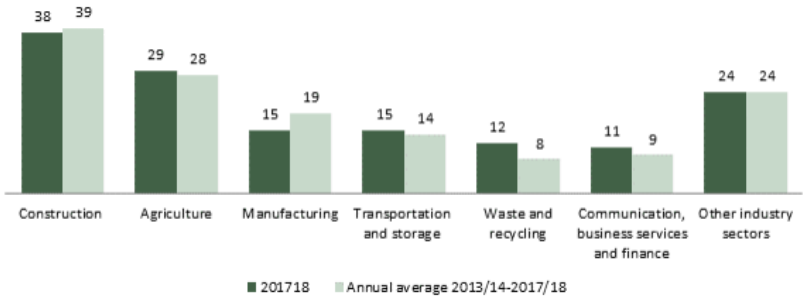
ii) The accident rate in the construction industry is four times higher than that in any other industry. Why?

The accident rate in the construction industry is four times higher because of the wide range of varying working conditions involving supported structures, moving equipment and labour make the site highly unpredictable environments. Additional due to the rapidly changing conditions, it is not adequate to adopt safety procedures from the static manufacturing.
Please see the graph from www.hse.gov.uk showing the statistics from 2013/2014 and 2017/2018

Injuries by industry[1]

There are two ways of looking at fatality numbers. The first is to look at the **absolute count**. On this basis, construction and agriculture tend to come out worst as they account for the greatest number of fatalities each year.

Figure 2: Number of fatal injuries by main industry group, 2017/18p and annual average for 2013/14-2017/18p



iii) Outline the main duties and responsibilities of the construction supervisor.

The main duties of the construction supervisor are to motivate and coordinate activities of other workers to get the job done on time. In addition, the construction supervisor should be familiar with the various phases of the project. The phases are follows:

- Conception of the building based on requirement of the owner or user
- Determining the feasibility of the project and comparing alternatives
- Preparing detailed designed, drawings and resource cost estimates
- Translating construction ideas from paper into reality using the resources.

Please below other additional duties that construction supervisor oversees.

- Encourages teamwork spirit
- Ensure workers are disciplined
- Deal with all manner of conflicts arising at the work site
- Promote a good relationship between the workers and general public

- Ensure plans and schedules are adhered to by regular inspection and quality control
- Trains and develops the workforce to meet new challenge

The Construction supervisor is directly responsible for ensuring progress and is made according to schedules or work. It is his duty to ensure that progress is consistently maintained by the following this list:

- Studying the construction programme prepared by the project manager or project engineer.
- Preparing detailed programmes to expand on the schedules and preparing schedules for orginising the resources required for your work.
- Having in place a systematic approach to writing daily progress reports.
- Ensuring all specifications and requirements of the projects are being followed.
- The supervisor must also regularly check the quality of work and compared with quality control specifications to see whether the project is on the right track or not. He should correct any deviations promptly if he is in a position to do, otherwise, deviations should be reported to the site engineer immediately.

2) Discuss some Important features of the construction industry.

There are many different features of the construction industry, but here are the nine key most important features;

Complexity

The modern construction industry is highly mechanised and complex; its involves complex interactions between a vast array of resources, who are skilled in labour, equipment, such as cranes, earth movers, movers and logistic, each phase of the project all interconnects into thousands of activities.

Organisation

The complexity of large scale projects means that there is the need of a great deal of organization and management of a large group of people who interact with each other in many ways to produce the final product within a limited time period. Three groups of people are normally involved in a typical construction project

- The owner
- The engineering group

- The construction group

Uniqueness

As spoken about before in question one, the construction industry is unique from any other industry. There are no two project that are the same. This uniqueness of each project is defined by the nature of the site of construction and is also influenced by the weather, as well as, the ground conditions due to various sites.

Mobility of Facilities

The construction industry requires moving resources such as labour, equipment, materials, from one place to the other to create products under dynamic and hazardous working conditions,

Safety Hazards

The wide range of varying working conditions involving supported structures, moving equipment and labour make the site highly unpredictable environment. Careful and adequate research needs to be conducted to determine the most effective type of safety procedure to implement on the site because losses resulting from construction accidents could significant effect profits.

Multiplicity of Agencies

Many different agencies are involved in construction projects, from the conception of the product through to the completion of the project.

Finance

Financial activities involved in construction can be classified into different categories;

1. Investments in fixed assets
2. Short-term finances
3. Investment in future through education, training, research
4. Overheads in salaries.

Funding sources can come from credit facilities, loans and securities.

Productivity and Labour Quality

Productivity

Historically, productivity in the construction industry has not been as high as one would have expected given the large number of people employed in this sector. Two main reasons may account for this low productivity:

- Supply issues
  Supply is hampered by the immobile nature of projects and the harsh conditions during the construction process.
- Demand issues
  One finds that demand for construction products tend to be seasonal or cyclic, making it a highly unpredictable market.

Labour

The lack if adequately-trained personnel is the single most important factor for low productivity records. Main reasons for this is that mostly depends upon the location of the project site. This means that the local workforce is normally employed to carry out various aspects of the construction. Workers may improve on their skills through on-the-job learning, but this is by trial and error or by imitation.

2) How has the growth in technology affected the construction industry?

With technology growing and innovating year on year, most industries have been affected by some sort of industry disruption. That paired with uncertain and complex economic and political times has forced businesses either to adapt and change their ways or resulted in failure.

In the past decade, the construction industry has seen many changes, from the construction materials used, type of builders, to methods used to design and build new facilities – all because of advancements in technology.

Technology and Materials

Sustainability has been the main driver behind construction technology with the main goal centred on how the industry can continue to develop projects on a mass scale whilst considering the effects on the environment too.

Every year, more and more research are conducted to improve the longevity and safety of materials used in the construction of everything from large scale operations to our homes. From Cardiff University's study on self-healing concrete to reflective self-cooling paint – sustainability and safety are at the forefront of developing construction materials.

Green materials mean that buildings have less impact on the environment around them and are also a more cost-effective solution long term saving around 50% on monthly utility bills.

Although traditional materials such as bricks, mortar and steel are still important components of most buildings, technology is also changing how materials are created and used.

As well as creating sustainable materials to use in construction, the methods of producing these products have also changed due to technology. Many modern

apartment buildings and hotels are built using panelled walls which are designed by computers and made in factories instead of on site. In some cases, they are even created by robots. The methods of creating these materials reduces labour costs and waste.

Student Statement:

By submitting this assignment, I confirm that this is my own work.

Student Signature	Scott Meenagh	Date	18-Mar-2019

For Tutor / Assessor Use Only

Total Marks	
Marks Obtained	
Percentage / Grade	