

MANAGING BIG DATA 21BSC071

Semester 1 2022

(1b) Exam paper

This is a (1b) online examination, meaning you have a total of **2 hours plus an additional 30 minutes** to complete and submit this paper. The additional 30 minutes are for downloading the paper and uploading your answers when you have finished. If you have extra time or rest breaks as part of a Reasonable Adjustment, you will have further additional time as indicated on your exam timetable.

It is your responsibility to submit your work by the deadline for this examination. You must make sure you leave yourself enough time to do so.

It is also your responsibility to check that you have submitted the correct file.

Exam Help

If you are experiencing difficulties in accessing or uploading files during the exam period you should contact the exam helpdesk. For urgent queries please call **01509 222900**.

For other queries email examhelp@lboro.ac.uk

You may handwrite and/or word process your answers, as you see fit. It is preferred that you type your answers.

This is an **open book exam** and you may refer to module materials, notes or textbooks when answering. However, you **must produce your own responses** to the exam questions and you **should not copy or reproduce content** from a source without quotation marks and a citation. Students who do this will be marked down for poor scholarship or the work will be considered for Academic Misconduct in line with regulation XVIII.

You must clearly identify the question and part, as required, in your answer, either through the numbering system or by including the relevant exam question and/or part as a heading.

You may include headings, bullet points etc to help with clarity as required. Graphs and images may also be included and should be appropriately referenced.

In text citations should use the Harvard style in accordance with the School of Business and Economics guidelines. You do not need to include a reference list.

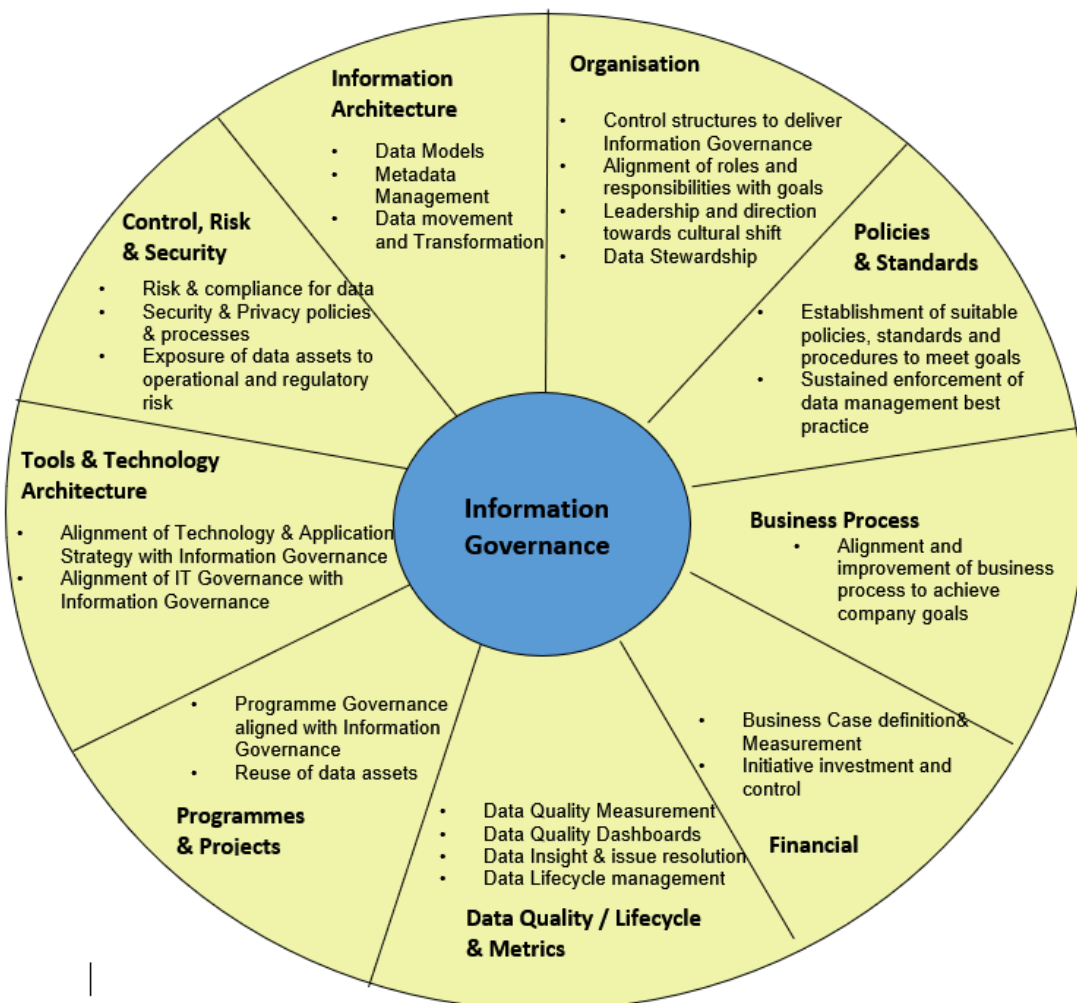
Answer any TWO essay questions from a choice of 4. The maximum word length 1000 words per question.

ALL QUESTIONS CARRY EQUAL MARKS.

1. There has been a lot of popular news around Data, AI and Ethics. Your boss plans to create a new service that mines social media data for emotions to gain quality insights about motor vehicles. Through using these data insights, the boss will report to large car manufacturers about how to improve their brand perception and vehicles by adding or removing components of the car (e.g. cup holders, new 6 wheel vehicles) and the big issues customers are concerned about. Your boss wants a report on the potential risks of providing this service drawing on your experience of using Python to mine Reddit Data, and your thoughts on the various ethical concerns and perceptions of using peoples' data. Use the 5Vs to provide a framework for your answer

(50 marks)

2. Information governance is an important aspect of any business. Your boss wants to learn about information governance and would like you to write a short report on just three of the 9 key dimensions associated with an information governance framework. In addition, provide examples for each of the three dimensions on how they will impact the business and possible techniques that could be employed to improve information governance.



(50 marks)

3. You have decided to set-up a new company that will offer pay-as-you go electrical cars. There are many business risks associated with this new start-up, for example, customers not returning the vehicle, the vehicle being damaged, the customer not paying. Detail how Descriptive, Predictive, Prescriptive and Cognitive Analytics will aid and/or hinder your business. Identify and describe the data sets that could be used. Where possible provide specific examples to help your boss understand your proposed approach.

(50 marks)

4. You have just joined a new company. When joining the new company, you discover that trying to locate digital sources of information is difficult. You've decided to write a short report about metadata for your manager detailing:

- Why metadata is important to the overall information landscape;
- Outlining potential advantages and disadvantages of using metadata detailing the key types of metadata;
- Describe the differing sources / types of metadata (auto and manual);
- How metadata could be used within the organisation and how it might increase/decrease costs.

(50 marks)

Professor Tom Jackson