MODULE NAME:	MODULE CODE:
SUPPLY CHAIN MANAGEMENT	SPCM7321/d

ASSESSMENT TYPE: ASSIGNMENT 1 (PAPER ONLY)

TOTAL MARK ALLOCATION: 100 MARKS

TOTAL HOURS: 10 HOURS

By submitting this assignment, you acknowledge that you have read and understood all the rules as per the terms in the registration contract, in particular the assignment and assessment rules in The IIE Assessment Strategy and Policy (IIE009), the intellectual integrity and plagiarism rules in the Intellectual Integrity Policy (IIE023), as well as any rules and regulations published in the student portal.

INSTRUCTIONS:

1. ***No material may be copied from original sources, even if referenced correctly, unless it is a direct quote indicated with quotation marks. No more than 10% of the assignment may consist of direct quotes.***
2. ***Save a copy of your assignment before submitting it.***
3. *Assignments must be typed unless otherwise specified.*
4. *All work must be adequately and correctly referenced.*
5. *Begin each section on a new page.*
6. *This is an individual assignment.*

Referencing Rubric

Providing evidence based on valid and referenced academic sources is a fundamental educational principle and the cornerstone of high-quality academic work. Hence, The IIE considers it essential to develop the referencing skills of our students in our commitment to achieve high academic standards. Part of achieving these high standards is referencing in a way that is consistent, technically correct and congruent. This is not plagiarism, which is handled differently.

Poor quality formatting in your referencing will result in a penalty **of** according to the following guidelines **a maximum of ten percent being deducted from the overall percentage**. Please note, however, that **evidence of plagiarism in the form of copied or uncited work (not referenced), absent reference lists, or exceptionally poor referencing, may result in action being taken in accordance with The IIE's Intellectual Integrity Policy (0023)**.

Markers are required to provide feedback to students by indicating **(circling/underlining) the information that best describes the student's work.**

Minor technical referencing errors: 5% deduction from the overall percentage. – the student's work contains **five or more errors** listed in the minor errors column in the table below.

Major technical referencing errors: 10% deduction from the overall percentage. – the student's work contains **five or more errors** listed in the major errors column in the table below**.**

If both minor and major errors are indicated, **then 10% only** (and not 5% or 15%) is deducted from the overall percentage. The examples provided below are not exhaustive but are provided to illustrate the error.

Required: Technically correct referencing style	Minor errors in technical correctness of referencing style Deduct 5% from overall percentage. Example: if the response receives 70%, deduct 5%. The final mark is 65%.	Major errors in technical correctness of referencing style Deduct 10% from the overall percentage. Example: if the response receives 70%, deduct 10%. The final mark is 60%.
Consistency • The same referencing format has been used for all in-text references and in the bibliography/reference list.	Minor inconsistencies. • The referencing style is generally consistent, but there are one or two changes in the format of in-text referencing and/or in the bibliography. • For example, page numbers for direct quotes (in-text) have been provided for one source, but not in another instance. Two book chapters (bibliography) have been referenced in the bibliography in two different formats.	Major inconsistencies. • Poor and inconsistent referencing style used in-text and/or in the bibliography/ reference list. • Multiple formats for the same type of referencing have been used. • For example, the format for direct quotes (in-text) and/or book chapters (bibliography/ reference list) is different across multiple instances.
Technical correctness • Referencing format is technically correct throughout the submission. • The correct referencing format for the **discipline** has been used, i.e., either **APA,** OR **Harvard** OR **Law** • Position of the reference: a reference is directly associated with every concept or idea. • For example, quotation marks, page numbers, years, etc. are applied correctly, sources in the bibliography/reference list are correctly presented.	Generally, technically correct with some minor errors. • The correct referencing format has been consistently used, but there are one or two errors. • Concepts and ideas are typically referenced, but a reference is missing from one small section of the work. • Position of the references: references are only given at the beginning or end of every paragraph. • For example, the student has incorrectly presented direct quotes (in-text) and/or book chapters (bibliography/reference list).	Technically incorrect. • The referencing format is incorrect. • Concepts and ideas are typically referenced, but a reference is missing from small sections of the work. • Position of the references: references are only given at the beginning or end of large sections of work. • For example, incorrect author information is provided, no year of publication is provided, quotation marks and/or page numbers for direct quotes missing, page numbers are provided for paraphrased material, the incorrect punctuation is used (in-text); the bibliography/reference list is not in alphabetical order, the incorrect format for a book chapter/journal article is used, information is missing e.g. no place of publication had been provided (bibliography); repeated sources on the reference list.
Congruence between in-text referencing and bibliography/ reference list • All sources are accurately reflected and are all accurately included in the bibliography/ reference list.	Generally, congruence between the in-text referencing and the bibliography/ reference list with one or two errors. • There is largely a match between the sources presented in-text and the bibliography. • For example, a source appears in the text, but not in the bibliography/ reference list or vice versa.	A lack of congruence between the in-text referencing and the bibliography. • No relationship/several incongruencies between the in-text referencing and the bibliography/reference list. • For example, sources are included in-text, but not in the bibliography and vice versa, a link, rather than the actual reference is provided in the bibliography.
In summary: the recording of references is accurate and complete.	In summary, at least **80%** of the sources are correctly reflected and included in a reference list.	In summary, at least **60%** of the sources are incorrectly reflected and/or not included in reference list.

Overall Feedback about the consistency, technical correctness and congruence between in-text referencing and bibliography:

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Read the articles below and answer Question 1, Question 2 and Question 3 as follows:

Article 1: Biotech Africa

Specialists in recombinant protein production & bioprocessing

Driven by the global requirement for improved in vitro diagnostics. Our current range of highly purified recombinant proteins are used in the manufacture of diagnostic test kits for point of care rapid diagnostics, and research institutions. We offer a variety of protein expression platforms along with a host of other protein services, including protein refolding and structural biology analysis.

With our proprietary technology, we are able to deliver highly stable and functionally active recombinant proteins. Our range of highly purified recombinant proteins are used in the manufacture of diagnostic test kits for point of care rapid diagnostics, and by research institutions.

- SARS-CoV-2 proteins
- Typhoid proteins
- HIV proteins
- Dengue proteins
- Syphilis proteins
- Zika proteins
- Hepatitis C proteins

We proudly boast:

- ISO13485 certification (The first of its kind in Africa)
- Proprietary technology, facilitating the delivery of recombinant proteins in native functional conformations.
- Customised protein design and delivery services
- Local & international customer base (testimonials)
- End-user support – assistance with applications including assay design, optimisation and protein conjugation

Protein Services: We produce and deliver exceptional quality by maintaining and adhering to ISO13485 Standards and strict Quality Management Systems.

- Protein Identification
- Gene Design & Optimisation

- Subcloning, Mapping & Sequencing
- Cell Transformation & Expression
- Pilot Scale Production
- Purification
- Stability Studies
- Optimisation of Expression
- Commercial Scale Production

Adapted from Source: BioTechAfrica. 2021. About Us. [Online]. Available at: https://www.biotechafrica.com/about-us [Accessed 18 February 2022].

Article 2: Local biotech company seeks government support, as it launches new Covid-19 testing technology that will allow for affordable mass testing

Cape Town-based Biotech Africa is launching a new testing platform that will allow for the ultra-high throughput of Covid-19 tests, at a fraction of the current testing costs. This is in response to the shortage of test kits in South Africa, which has resulted in only around three and a half million tests having been conducted in a population of close to 60 million.

“South Africa has the fifth highest number of Covid-19 cases in the world, but only around 5% of our total population has been tested to date. The current testing capacity is around 30,000 tests a day by the state, which is simply not enough for a population the size of ours,” says Paul Anley, BioTech Africa CEO.

BioTech Africa’s new testing technology will allow for up to 50,000 tests to be conducted every day, with potential for additional capacity of 200,000 tests to be added later if required.

About BioTech Africa

BioTech Africa are specialists in recombinant protein production and bioprocessing. Driven by the global requirement for improved in vitro diagnostics, their current range of highly purified recombinant proteins are used in the manufacture of diagnostic test kits for point of care rapid diagnostics, and research institutions. They offer a variety of protein expression platforms along with a host of other protein services, including protein refolding and structural biology analysis.

Adapted from Source: BIZCOMMUNITY. 2021. Local biotech company seeks government support, as it launches new Covid-19 testing technology that will allow for affordable mass testing, 25 August 2020. [Online]. Available at: https://www.bizcommunity.com/Article/196/858/207577.html [Accessed 23 November 2021].

Question 1		**(Marks: 30)**
"Setting goals, and then embarking on a journey to attain those goals with some chance of success, can only be done if you understand the capabilities and limitations of any strategy, given the organisation and the industry within which it operates." (Neuland, 2021:31).		
Q.1.1	Using examples related to the BioTech Africa business, compare and contrast a corporate strategy against a business strategy. Note, you are required to paraphrase your explanations of corporate and business level strategies before applying it to BioTech Africa.	(10)
Q.1.2	In industrial location theory, the least-cost approach is underpinned by three key factors: transport, labour and factors of agglomeration. BioTech Africa's factory is in Cape Town; they are considering implementing a distribution centre in Johannesburg. In a brief report, you are required to: • Analyse these three factors in relation to BioTech Africa's consideration. • Make a recommendation on whether they should keep their distribution point in Cape Town or locate it in Johannesburg. • Justify your recommendation by discussing at least 2 key points. Note, you are required to paraphrase your explanations of each factor before relating it to BioTech Africa.	(20)

Question 2 **(Marks: 25)**

"It is essential for all supply chain participants to communicate and collaborate to ensure the smooth flow of inventory throughout the supply chain." (Moodley, 2021:177).

Q.2.1	Identify two (2) principles of an inventory management system that are key to a business such as BioTech Africa. Note, you are required to paraphrase your explanations of inventory management principles and apply these principles to BioTech Africa.	(10)
Q.2.2	**Using the transformation process, illustrate the conversion of "**bioprocessing". Note, you will be required to conduct research on bioprocessing.	(10)
Q.2.3	When forecasting, which forecasting technique do you think BioTech Africa is most likely to use? Justify your answer by discussing at least 2 key points.	(5)

Question 3 **(Marks: 45)**

"A warehouse within any given supply chain structure represents a significant cost component of the total landed cost of a product. In fact, warehousing and storage costs are only second to transportation costs in the total logistics cost structure." (Mocke, 2021:199).

Write an essay of a minimum of 1100 and a maximum of 1400 words on the following:

1. Examine how the following factors could impact the operations and processes in the BioTech Africa warehouse. (20 marks)
    a. Nature, quantity and size of the product. (5 marks)
    b. Skill levels of operators. (5 marks)
    c. Requested service levels. (5 marks)
    d. Levels of automation and information technology (IT) functionality. (5 marks)
2. Choose two (2) distribution channels that will enable BioTech Africa to deliver goods and services optimally. Justify your selection. (10 marks)

NB: The marks allocated next to each concept should serve only as a guide to the depth your discussion should cover. Your answer should be a minimum of 1 100 to a maximum of 1 400 words.

Markers are to stop marking after the threshold of 1 400 words has been reached. Please indicate the word count at the end of your answer.

Sources of information

You are required to read much wider than your textbook to be able to answer this question in full. You are advised to search for valid academic articles and writings. EBSCOhost is a good place to start, and your librarian should be able to help you with this. Academic writings are typically peer reviewed and are attributed or written by a specific person or group of persons. You should avoid references to general websites, where no authors' names appear or to sites such as Wikipedia. Ensure that all work is properly referenced.

You will be assessed according to the rubric below:

Criteria	Points for Consideration	Marks
1. Structure of essay and clarity of writing	• Correct essay structure. • Logical and coherent flow. • Academic tone and clear writing.	/5
2. Content	• Knowledge of Strategic Supply Chain Management acquired through research, analysis, and application to a business organisation.	/30
3. Substantiation	• Substantiation of points.	/5
4. Overall Argument and synthesis	• Comprehensiveness of answer. • Balance of breadth and depth. • Ability to build a coherent essay from the ideas contained in multiple sources.	/5
	Total	**/45**

END OF ASSIGNMENT

[TOTAL MARKS: 100]