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| FACULTY/COLLEGE | College of Business and Economics |
| SCHOOL | Johannesburg Business School |
| DEPARTMENT | Business Management |
| CAMPUS | APB |
| MODULE NAME | Operations Management |
| MODULE CODE | AC1OPSM |
| SEMESTER | Second |
| ASSESSMENT OPPORTUNITY, MONTH AND YEAR | Final Summative Assessment November 2019 |

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|------------------------|------------------|--------------------|-----|
| ASSESSMENT DATE | November 2019 | SESSION | |
| ASSESSOR | Mr J Mbuya | | |
| MODERATOR | Mr SC Mukwakungu | | |
| DURATION | 120 minutes | TOTAL MARKS | 100 |

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| NUMBER OF PAGES OF QUESTION PAPER (Including cover page) | 7 |
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INFORMATION/INSTRUCTIONS:

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- This is a closed-book assessment.
 - Question papers must be handed in together with your answer books.
 - Read the questions carefully and answer only what is asked.
 - Answer all the questions:
 - Answer **Section A** on the multiple-choice page in the back of your answer book.
 - Answer **Section B** in the answer book.
 - Number your answers clearly.
 - Write neatly and legibly on both sides of the paper in the answer book, starting on the first page.
 - Structure your answers by using appropriate headings and subheadings.
 - The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.

SECTION A**[15 MARKS]****QUESTION 1**

Which of the following are characteristics of manufacturing operations?

- (i) Output is more tangible
- (ii) More labour content
- (iii) Output is more transportable and storable
- (iv) Performance measurement is more difficult to measure

Choose the correct answer:

- A (i), (ii) and (iii)
- B (i) and (iii)
- C (ii), (iii) and (iv)
- D (iii) and (iv)
- E (i), (iii) and (iv)

QUESTION 2

Which of the following are the major functions of operations management?

- A The function of product design; purchasing and production planning.
- B Service/product design; planning of capacity and demand; purchasing, production planning and control; quality improvement; problem solving and maintenance.
- C Product/service design; planning of capacity and demand; production system design; production planning and control; improvement; problem solving and maintenance.
- D Service design; planning of capacity and demand; production system design; production planning; improvement and problem solving

QUESTION 3

To which of the following inputs is value added during the transformation process?

- A Capital
- B Labour
- C Equipment
- D Raw materials
- E Information

QUESTION 4

Which one of the following statements describes the concept *value added*?

- A Processes exploited to conceive and deliver goods and services at cheaper prices.
- B Additional value of a commodity over the cost of commodities used to produce it from the previous stage of production.
- C Additional value in the price of a product in comparison with competitive products.
- D Additional value added to a product when training staff to work smarter.
- E None of the above.

QUESTION 5

Deciding on the location and layout of a plant is the responsibility of _____ .

- A top management
- B middle management
- C operational management
- D all of the above

QUESTION 6

Simpfiwe Curtain Creations manufactures curtains and blinds according to the design and preferences of the consumers. The enterprise would therefore use a _____ system.

- A job shop
- B batch production
- C assembly line
- D continuous process
- E project management

QUESTION 7

Katlego plans on manufacturing his shoes on a small scale with low volume of outputs. This will ensure that his label remains as exclusive as possible. Which process type for manufacturers would you recommend Dumisani implements at his plant?

- A Batch production
- B Continuous process
- C Project management
- D Assembly line
- E Job shop

QUESTION 8

The process that is used for manufacturing highly standardised products is _____.

- A continuous process
- B assembly lines
- C project management
- D batch production
- E job shop

QUESTION 9

Batch operations tend to have what kind of markets?

- A Consumers mass markets
- B Consumers markets
- C Commodity mass markets
- D Individual consumers
- E Industrial markets

QUESTION 10

Hosting the 2010 FIFA World Cup is an example of a(n) _____ process.

- A job shop
- B batch production
- C assembly line
- D continuous process
- E none of the above

QUESTION 11

_____ forecasts are objective because they are derived from mathematical calculations based on known numerical data.

- A Seasonal
- B Naïve
- C Qualitative
- D Quantitative

QUESTION 12

Mr Thabiso, a punter, phones his brother-in-law, who has been betting on the horses for years, to find out about the chances of a horse that he fancies will win. Which forecasting technique is Thabiso using?

- A Seasonal
- B Naïve
- C Expert opinion
- D Exponential smoothing

QUESTION 13

The more periods there are in simple moving average forecast, the_____ .

- A more stable the forecast will be
- B more the forecast will fluctuate
- C less accurate the forecast will be
- D less stable the forecast will be
- E higher the forecast will be

QUESTION 14

Which one of the following best describes the “Gap 4” for diagnosing quality problems?

- A The customer’s specification – operation’s specification gap
- B The actual-quality – communicated-image gap
- C The concept – specification gap
- D The quality-specification – actual-quality gap

QUESTION 15

Which one of the following is an intangible reason for foreign locations?

- A Customer-related reasons.
- B Organisational learning-related reasons.
- C The firm by being physically present in the host country may gain some ‘local boy’ kind of psychological advantage.
- D The firm may avoid ‘political risk’ by having operations in multiple countries.
- E All of the above.

SECTION B**[85 MARKS]****QUESTION 1****[10 MARKS]**

Read the case study below and answer the questions that follow.

KCC COMPUTERS

KCC Computers is specialised in the manufacturing of desktop computers for schools in South Africa.

In 2008, KCC Computers signed a contract with the Department of Education to supply three thousands desktop computers over 2 years to selected schools across South Africa. After drawing up a project plan, the management realised that KCC Computers would not be able to supply the desktop computers without increasing the number of employees. As a result, a number of new employees were appointed.

The main drive for the management team of KCC Computers was to ensure that the desktop computers were supplied on time and this placed a lot of pressure on the staff.

Before long productivity started to decrease, there were no set objectives, the production plan kept changing every day, miscommunication occurred often, the morale of the staff was very low, employees did not operate as a team and little or no time was spent on training. This resulted in work that had to be redone, high absenteeism, high scrap rates, and missed deadlines.

The management of KCC Computers has received several complaints from schools and they stand to lose the contract with the Department of Education. The board members are very concerned about the matter and have requested a meeting with the management of KCC Computers to discuss the matter.

- 1.1 Identify the production process used by KCC Computers. (2)
- 1.2 Based on your answer in 1.1, briefly discuss any five advantages of the production process that you have identified. (5)
- 1.3 List any three limitations of the production process that you identified in 1.1. (3)

QUESTION 2**[8 MARKS]**

Calculate the productivity of the following dairies and indicate which one has the lowest productivity.

- A 356 kilograms of cheese produced from 723 litres of milk.
- B 25 kilograms of cheese produced from 36 litres of milk
- C 9 805 kilograms of cheese produced from 16 200 litres of milk

QUESTION 3**[10 MARKS]**

In a table format, compare operations management in a service organisation and in a manufacturing organisation.

QUESTION 4**[12 MARKS]**

- 4.1 Briefly explain the four gaps of diagnosing quality problems. (8)
- 4.2 List at least four ways in which quality improvements can affect other aspects of operations performance. (4)

QUESTION 5**[20 MARKS]**

Briefly discuss any five **controllable** and five **uncontrollable** general locational factors.

QUESTION 6**[25 MARKS]**

In the table below you will find the monthly demand for agricultural fertilizer at the Senwes Cooperation situated in Polokwane. The fertilizer is sold in 50 kg bags.

| YEAR | |
|-----------|--------|
| January | 4 000 |
| February | 6 000 |
| March | 4 000 |
| April | 5 000 |
| May | 10 000 |
| June | 8 000 |
| July | 7 000 |
| August | 9 000 |
| September | 12 000 |
| October | 14 000 |
| November | 15 000 |
| December | |

- 6.1 Determine the forecast demand for the months August to December using the **three period moving** average technique. (10)
- 6.2 Identify any five types of **qualitative forecast techniques** and explain how and/or when each is used. (15)

END OF ASSESSMENT