# UNIVERSITI KUALA LUMPUR
## BUSINESS SCHOOL

## FINAL EXAMINATION
### MARCH 2026 SEMESTER

| | | |
|---|---|---|
| COURSE CODE | : | ECB20903 |
| COURSE NAME | : | TECHNOLOGICAL INNOVATION IN BUSINESS DEVELOPMENT |
| PROGRAMME NAME | : | BACHELOR OF BUSINESS ADMINISTRATION (HONS) IN MANAGEMENT AND ENTREPRENEURSHIP |
| DATE | : | 29th JUNE 2026 |
| TIME | : | 9:00 AM – 12.00 PM |
| DURATION | : | 3 HOURS |

## INSTRUCTIONS TO CANDIDATES

1. **Please CAREFULLY read the instructions given in the question paper.**
2. **This question paper has information printed on both sides of the paper.**
3. **This question paper consists of TWO section.**
4. **Section A consists of FOUR questions. Answer ALL. Section B consists of FOUR (4) questions answer THREE (3) only.**
5. All questions must be answered in **English** (any other language is not allowed).
6. **Please write your answer on th answer booklet provided.**
7. **This question paper must not be removed from the examination hall.**

THERE ARE 7 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

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SECTION A (Total: 40 marks)

**Answer ALL questions.**

**Please use the answer booklet provided.**

**Question 1**

A traditional car manufacturing company is facing competition from electric vehicle (EV) companies using AI and autonomous technologies. Apply your understanding of disruptive technologies to explain how these technologies threaten traditional automotive manufacturers.

(10 marks)

**Question 2**

A taxi company is experiencing strong competition from ride-hailing applications that use GPS, mobile payment, and AI-based pricing systems. Apply your understanding of disruptive technologies to explain how ride-hailing platforms threaten the traditional taxi business.

(10 marks)

**Question 3**

A manufacturing company plans to implement Industrial Internet of Things (IIoT) and smart factory technologies to improve productivity. However, the management faces several technological innovation challenges. Analyze **FOUR** major challenges the company may encounter when implementing these technologies.

(10 marks)

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**Question 4**

IKEA – Innovation and Sustainability in Retail

IKEA, the world's leading furniture retailer, has built its reputation on affordable, flat-pack furniture and strong commitment to sustainability. Recently, IKEA has invested heavily in technology innovation such as:

Augmented Reality (AR) apps to help customers visualize furniture in their homes.

Smart home solutions (lighting, air purifiers, and connected furniture).

Circular economy initiatives, including furniture leasing, buy-back programs, and recycling.

To foster an innovative climate, IKEA encourages employees and partners to propose creative ideas through internal innovation labs. Sustainability is central to IKEA's vision, with goals such as becoming climate positive by 2030 and ensuring all products are made from renewable or recycled materials.

However, challenges include balancing affordability with eco-friendly designs, scaling sustainable innovations globally, and managing cultural differences across markets.

(a) How can IKEA apply its Augmented Reality (AR) app to strengthen customer engagement and purchasing decisions in different cultural markets?

(5 marks)

(b) Analyze the potential trade-offs IKEA faces between affordability and sustainability when implementing its circular economy initiatives.

(5 marks)

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SECTION B (Total: 60 marks)

**Answer THREE (3) questions only.**

**Please use the answer booklet provided.**

**Question 1**

Technological innovation plays a decisive role in promoting sustainability and democratizing access to finance and facilitates the high-quality transformation of economic development, especially offering financial benefits to environmentally friendly and sustainable investors. Sustainable value creation through technological innovation is one of the most significant factorsthat offerinvestors advantages while addressing critical environmental challenges. The increased interest of enterprises in adopting technological innovation and their perseveration in reaching environmental sustainability leads to introducing new environment-related technologies by providing environmentally friendly and socially responsible solutions.

(a) Define the term of "Technology Innovation", in your own words based on the statement given above.

(4 marks)

(b) Examine its significance in managing technology innovation with **FOUR (4)** ideas for business based on the above article.

(10 marks)

(c) Briefly describe the three phases of the New Product Development (NPD) process.

(6 marks)

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Question 2

**FreshBite Foods Sdn. Bhd.**

FreshBite Foods Sdn. Bhd. is a medium-sized food manufacturing company in Malaysia specializing in frozen ready-to-eat meals and packaged sauces. The company supplies products to supermarkets, convenience stores, and online food delivery platforms across Southeast Asia.

In recent years, FreshBite Foods has experienced several operational and technological challenges due to rapid changes in consumer behavior and market competition. Customers increasingly demand healthier food options, faster delivery, environmentally friendly packaging, and accurate food traceability. Competitors have started implementing Artificial Intelligence (AI), Internet of Things (IoT), and automated production systems to improve efficiency and product quality.

However, FreshBite Foods still relies on manual inventory management, traditional quality inspection, and outdated supply chain systems. As a result, the company frequently faces:
Food wastage due to inaccurate demand forecasting
Delays in delivery and inventory shortages
Inconsistent product quality
Difficulty tracing contaminated products during food safety incidents
High operational costs caused by inefficient production processes
The management team plans to invest in technological innovation to remain competitive. Several proposed solutions include:
AI-based demand forecasting systems
IoT-enabled smart storage monitoring
Blockchain-based food traceability systems
Automated robotic packaging systems
Mobile applications for customer feedback and ordering
The company must carefully evaluate the risks, costs, employee readiness, and long-term sustainability before implementing these technologies.

(a) Explain how FreshBite Foods can use AI-based demand forecasting to reduce food wastage and improve operational efficiency.

(4 marks)

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(b) Demonstrate how IoT technology can improve food quality monitoring in FreshBite Foods.

(4 marks)

(c) Analyze the major challenges FreshBite Foods may face when implementing automated robotic packaging systems.

(4 marks)

(d) Provide **FOUR (4)** effectiveness of blockchain technology in solving food traceability issues faced by FreshBite Foods.

(4 marks)

(e) Evaluate a suitable technological product that FreshBite Foods can implement to improve customer satisfaction and operational performance.

(4 marks)

**Question 3**

A retail store struggles with long checkout lines and frequent stock inaccuracies due to outdated cash registers and manual inventory counts.

(a) Assess the main problem based on the statement given above. Explain it in your own words with **FOUR (4)** points of the problem with solutions.

(10 marks)

(b) Provide **TWO (2)** IT solutions that could resolve the problem of the statement above.

(10 marks)

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Question 4

**Case Study: DHL's Strategic Alliance and Joint Venture for Technology Development**

**Case Study Background**

DHL is one of the world's leading logistics and express delivery companies. To strengthen its technological capabilities and global logistics network, DHL formed strategic alliances and joint ventures with other organizations. One of the most significant examples was the joint venture between DHL Express and Lufthansa Cargo known as AeroLogic. The collaboration aimed to improve cargo capacity, operational efficiency, and technological innovation in the logistics industry.

Through the AeroLogic joint venture, both companies combined their expertise in logistics, air cargo operations, and digital technologies to develop advanced transportation systems and improve global delivery services. The alliance enabled DHL to access larger cargo networks, increase operational flexibility, and commercialize new logistics technologies more effectively.

In addition, DHL adopted Industry 4.0 technologies such as Artificial Intelligence (AI), Internet of Things (IoT), cloud computing, and real-time tracking systems to improve supply chain performance and customer experience. Strategic partnerships helped DHL reduce costs, improve efficiency, and remain competitive in the rapidly evolving logistics industry.

The case demonstrates how alliances and joint ventures can support companies in developing and commercializing new technologies while sharing risks, resources, and expertise.

(a) Explain why DHL formed a joint venture with Lufthansa Cargo through AeroLogic.

(5 marks)

(b) Discuss how strategic alliances help companies develop and commercialize new technologies.

(5 marks)

(c) Evaluate the challenges DHL may face when managing alliances and joint ventures for technological innovation.

(5 marks)



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(d) Recommend strategies DHL can use to strengthen future technology alliances and joint ventures.

(5 marks)

END OF EXAMINATION PAPER

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