

=== exam3_student2.txt ===

MSc Business Analytics – Exam 3

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Instructions:

Answer ALL questions. Use clear analytical reasoning, cite frameworks where relevant (e.g., network-effects taxonomy, AI adoption S-curve). Time allowed: 120 min.

Question 21:

Answer:

Competing locally means tailoring offerings to community norms and leveraging regional networks. Local rivals understand specific customer pain points—logistics, pricing, culture—that global players may miss. Platforms like regional e-commerce sites thrive by integrating local payment methods and delivery partners. Recognizing local competition ensures strategies fit nuanced market dynamics.

Question 22:

Answer:

In a non-digital realm, interactions rely on physical assets—machines, buildings, human networks—limiting instantaneous scaling. Resource allocation, logistics, and manual coordination impose friction absent in software. This difference explains why digital transformations often face resistance in traditional industries. Acknowledging non-digital constraints is essential for realistic change management.

Question 23:

Answer:

When marginal costs drop through technology, humans still retain final decision authority, preserving accountability. Information management systems reduce data collection costs,

but managers interpret reports and set strategy. For instance, BI platforms automate dashboards, yet executives decide which KPIs matter. This hybrid model balances cost efficiency with necessary human judgment.

Question 24:

Answer:

Network effects hinge on expanding connection possibilities—direct links (e.g., messaging) and indirect ones (e.g., app ecosystems). Direct effects grow linearly with users; indirect effects can accelerate value through complementary goods. For example, smartphone growth spurred app marketplaces, creating multi-sided effects. Comprehensive platform designs leverage both to maximize stickiness.

Question 25:

Answer:

Crossing from augmentation to automation involves shifting tasks fully into code, reducing human involvement to oversight. Partial automation boosts efficiency, but full automation disrupts cost structures by eliminating labor inputs. RPA in finance is an example: once bots handle entire invoice cycles, human roles pivot to exception management. This barrier marks a strategic inflection in operations.

Question 26:

Answer:

Previously, the lack of preinstalled browsers forced users to rely on physical media, slowing digital adoption. Installing from CDs or floppies required technical know-how, creating friction that impeded network growth. Removing such barriers—through built-in browsers—was crucial in accelerating internet diffusion. Friction points must be minimized to trigger viral adoption curves.

Question 27:

Answer:

Simplistic narratives help illustrate theoretical constructs but often gloss over complexities like market regulation or stakeholder incentives. A textbook story might omit factors such as regulatory delays or user heterogeneity. In practice, robust analysis must account for outliers, black-swan events, and stakeholder politics. Balancing simplicity with realism yields more actionable insights.

Question 28:

Answer:

Offering free services funded by advertising, while professional users pay premium fees, creates a sustainable two-tier model. Advertising subsidizes general usage, building scale; paid tiers finance further development. LinkedIn, for example, uses ads to cover basics and premium subscriptions for recruiters. This model balances accessibility with revenue generation.

Question 29:

Answer:

Organizations focusing on superior AI model development differentiate through technological moats—data quality, algorithmic innovations, and computing power. Competing “on model” means winning on predictive performance rather than price or marketing. Autonomous vehicle firms illustrate this: the company with the most robust perception stack gains market leadership. AI prowess thus becomes a core strategic asset.

Question 30:

Answer:

Referring to “car” or “bicycle” abstracts away from thousands of individual parts into a single concept we all understand. This abstraction simplifies procurement, design thinking, and user communication. In analytics, composite indices achieve similar efficiency by aggregating multiple measures into one score. Abstraction is therefore a critical tool in both engineering and analysis.