=== exam2_student3.txt ===

MSc Business Analytics – Exam 2

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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 11:

Answer:

Rapid, pervasive change demands that organizations revisit their structural design. Legacy hierarchies often fail to respond to waves of new market entrants—so-called “campers.” By adopting modular teams and cross-functional squads (per Agile frameworks), firms can pivot more nimbly. Ultimately, organizational resilience is predicated on embracing constant flux rather than resisting it.

Question 12:

Answer:

Social reputation management networks leverage status signals—ratings, badges—to enhance trust and coordination. As users with high reputation engage more, their activity attracts others, amplifying engagement (a classic positive feedback loop). Platforms like eBay or Uber exemplify this: drivers and sellers with top ratings enjoy higher demand, reinforcing reputational effects. Consequently, reputation becomes both a metric and a catalyst for network vitality.

Question 13:

Answer:

In digital markets, second movers often outshine pioneers by refining user experience and business models. Facebook improved on MySpace's social graph usability; Slack iterated beyond IRC's primitive chat rooms. These later entrants leveraged learnings from early adopters to optimize onboarding, features, and monetization. Hence, success depends on continuous iteration and network effect orchestration more than on launch timing.

Question 14:

Answer:

Data alone lacks agency; insights arise only when analytics extract patterns and inform decisions. Machine learning models require high-quality data inputs and iterative validation to evolve. The "data→insight→action" pipeline is vital: without deploying findings back into products, platforms stagnate. Thus, the application of new insights is what truly fuels the next stage of data evolution.

Question 15:

Answer:

Disruption analysis must begin by quantifying two core variables: technological frontier shifts (e.g., LLM accuracy improvements) and adoption kinetics (e.g., Diffusion of Innovations S-curve). Combining these levers in scenario models reveals tipping points and ROI inflection. Without mapping both dimensions, predictions about market impact will lack rigor and strategic clarity.

Question 16:

Answer:

Abstraction distills complexity into manageable conceptual blocks, facilitating both memory and transferability. For instance, design patterns in software engineering group recurring solutions, enabling developers to apply proven approaches quickly. In business analytics, abstraction frameworks (e.g., TOM—Technology, Organization, Market) help structure problem-solving. Therefore, abstraction is a key enabler of analytical efficiency.

Question 17:

Answer:

Distinguishing between externalities and effects highlights how artifacts convert latent network value into real utility. The telephone network's externality was universal connectivity—but without the phone directory (a data product), the network effect remained limited. Platforms today intentionally design data-products—feeds, recommendations—to surface externalities and generate robust network effects.

Question 18:

Answer:

Gregory et al. (2019) identified that platform capabilities like predictive speed, accuracy, stewardship, and legitimation are critical for data network effects. Strong governance and user-centric design promote trust, leading to richer data flows. Over time, these data fuel more precise models, reinforcing the cycle. Hence, modern network effects are as much about technical and ethical foundations as about scale alone.

Question 19:

Answer:

Afuah's model shifts focus from mere user count to the structure and quality of interactions. More users expand the network graph exponentially, creating new connection pathways and content diversity. For example, ride-sharing platforms benefit not just from rider and driver density but also from optimized matching algorithms powered by richer data. Thus, increased scale unleashes multidimensional network value.

Question 20:

Answer:

Bridging collective and individualized value is central to platform strategy. High-level growth signals market vitality, but personalized incentives—targeted recommendations, loyalty rewards—drive user stickiness. Multi-sided platforms that balance macro metrics with bespoke user journeys achieve both scale and depth. This dual approach transforms fleeting adoption into sustained engagement.