University of M'Sila	Academic Year: 2025/2026
Faculty of Mathematics and Informatics	Examination Session: Normal
Department of Computer Science	Module: **Create and Develop Startups**
Date: 12/05/2026	Level: **3rd Year — Computer Systems**
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EXAMINATION — ANSWER KEY

Exercise 1 — Algerian E-Commerce Startup (DzMarket): PESTEL Analysis (5 points)

For each statement, identify the single PESTEL category.

1. The Algerian government recently passed Law 18-05 on e-commerce, requiring all online businesses to register with the Ministry of Commerce and obtain a digital signature.

   Answer: P — Political *(1 pt)*

   Law 18-05 is a government regulatory action, which falls under the Political dimension of PESTEL.

2. Inflation in Algeria reached 9.5% in 2024, and many households have reduced discretionary spending on non-essential goods like electronics and fashion.

   Answer: E — Economic *(1 pt)*

   Inflation and household spending patterns are macroeconomic indicators.

3. A growing number of young Algerians (ages 18–35) are using social media and smartphones to shop online, driven by the convenience of home delivery.

   Answer: S — Social *(1 pt)*

   Demographic behaviour, lifestyle trends, and consumer attitudes are Social factors.

4. Algérie Télécom has started deploying fibre optic internet in major cities, and 4G coverage now reaches 85% of the population.

   Answer: T — Technological *(1 pt)*

   Infrastructure deployment (fibre, 4G) represents a Technological development.

5. A new law requires all e-commerce platforms to pay VAT and provide electronic invoices verified by the tax authority (Direction Générale des Impôts).

   Answer: L — Legal *(1 pt)*

   Tax obligations and invoicing regulations are Legal requirements.

Exercise 2 — Netflix: Environmental Adaptation (5 points)

Model Answer:

Phase 1 — Initial Model (1997): Netflix was founded in 1997 by Reed Hastings and Marc Randolph, seizing the opportunity created by the rise of DVD technology. Rather than competing head-to-head with Blockbuster's store model, Netflix introduced a DVD-by-mail subscription service with no late fees, offering customers convenience and a broader catalogue at a flat monthly rate.

Phase 2 — First Shift (Mid-2000s): As broadband internet penetration grew rapidly in the mid-2000s, Netflix recognized that physical media was becoming a limitation. Instead of defending its DVD business, Hastings invested heavily in streaming technology, launching the Netflix streaming platform in 2007. This strategic pivot transformed Netflix from a logistics company into a digital content platform, reaching customers instantly on any connected device.

Phase 3 — Second Shift (2010s): When major studios and competitors like Hulu and Amazon Prime began entering the streaming market, licensing costs surged and content availability became uncertain. Netflix responded by investing in original content production — starting with *House of Cards* (2013) — becoming both a distributor and a studio. This move reduced dependency on external licences and created a unique, defensible content library.

Key Lesson: Successful entrepreneurs do not simply react to change — they anticipate it. Reed Hastings consistently *cannibalized his own business model* before competitors could do it for him. The lesson for entrepreneurs is: **monitor environmental shifts continuously, be willing to pivot early, and treat disruption as an opportunity rather than a threat.**

Marking guidance: 1 pt per phase (3 pts) + 1 pt for the key lesson + 1 pt for overall coherence and clarity.

Exercise 3 — Modern Marketing (5 points)

1. What is modern marketing? *(1 pt)*

   Modern marketing is the strategic process of creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.

2. What is its primary goal? *(1 pt)*

   The primary goal of modern marketing is to make selling superfluous. The aim is to know and understand the customer so well that the product or service fits them and sells itself.

3. What are its four pillars? *(1 pt)*

   The four pillars of modern marketing are: (1) Strategy— Who are you talking to and why? (2) Content and Messaging — What will you say? (3) Channels — Where will you say it? (4) Measurement — communicating the value (the 4 Ps / Marketing Mix).

4. List three digital marketing channels. For each, provide a real-world example. *(2 pts)*

Channel	Real-world Example
Social Media Marketing	**Jumia Algeria runs sponsored product ads on Facebook and Instagram targeting Algerian shoppers.**
Search Engine Marketing (SEO/SEM)	**Booking.com uses Google Ads to appear at the top of search results for "hotel Algeria."**
Email Marketing	**Amazon sends personalised recommendation emails to users based on their browsing and purchase history.**

Exercise 4 — Porter's Five Forces: Café Dz (5 points)

Identify the Porter's Five Force for each situation (1 pt each).

#	Situation	Force	Answer
1	Three other coffee shops already exist on the same street, and they keep lowering prices to attract customers.	**No. 2**	**Rivalry Among Existing Competitors**
2	Customers can easily buy instant coffee or make coffee at home for much less money.	**No. 1**	**Threat of Substitutes**
3	The only coffee bean supplier in the region has raised prices by 20% because there are no other options.	**No. 3**	**Bargaining Power of Suppliers**
4	Opening a coffee shop requires only a small investment and no special licence, so anyone can open one.	**No. 4**	**Threat of New Entrants**
5	A large group of office workers nearby can bargain for discounts because they bring so many daily customers.	**No. 5**	**Bargaining Power of Buyers**

Exercise	Max	Full Mark Answer
Exercise 1 — PESTEL	5	**5**
Exercise 2 — Netflix	5	**5**
Exercise 3 — Marketing	5	**5**
Exercise 4 — Porter	5	**5**
Total	**20**	**20**