Business Management Units 1 & 2

Chapter 14 — Staffing needs

Aboriginal and Torres Strait Islander content has been excluded as accuracy cannot be guaranteed, and it is better to be respectful than cover the entire curriculum inaccurately.

Significant effort has been made to ensure this content is legal. Please send any areas of concern to admin@vwx.au with appropriate document/legal references so errors can be verified and changes be made.

Contents

Chapter 14 Staffing needs — 14A The relationship between staff performance and achieving business objectives

Theory

Staff performance is **how well employees carry out their jobs** — the **quantity and quality** of the work they produce, and the extent to which they meet the standards the business expects. Employees who perform well are typically **productive** (they get a large amount of work done in the time available), **skilled** (they have the knowledge and ability to complete tasks correctly), **motivated** (they are willing to put in effort and care about their work) and **customer-focused** (they treat customers well). Employees who perform poorly are the reverse — slow or careless, lacking the necessary skills, unmotivated and indifferent to customers.

Business objectives are the **goals a business is trying to achieve**. A business establishing itself may pursue several; five that the performance of staff most directly affects are:

- **Making a profit** — earning **more revenue from sales than the business spends on costs** (profit = revenue − expenses).
- **Improving efficiency** — using the business's **resources (labour, time, materials and money) as well as possible** to produce its outputs, minimising waste and cost. An efficient business gets the **most output from the least input**.
- **Improving effectiveness** — the **degree to which the business achieves its stated goals**. An effective business is **doing the right things** to reach its targets, whether or not it does so cheaply.
- **Customer satisfaction** — **meeting or exceeding customers' expectations** so that customers are pleased with the product or service and want to return.
- **Growth** — **expanding the size and scale** of the business, for example by increasing sales, adding products, opening new outlets or hiring more staff.

(Other objectives — such as increasing market share, fulfilling a market and/or social need, or meeting owners' expectations — also exist, but the five above are the ones staff performance most directly influences.)

Note: efficiency is not the same as effectiveness. *Efficiency* is about **how well resources are used** (doing things at the least cost and waste); *effectiveness* is about **whether goals are achieved** (doing the right things). A business can be efficient but not effective (it uses resources well yet misses its goals), or effective but not efficient (it hits its goals but wastes resources). Staff performance affects **both**.

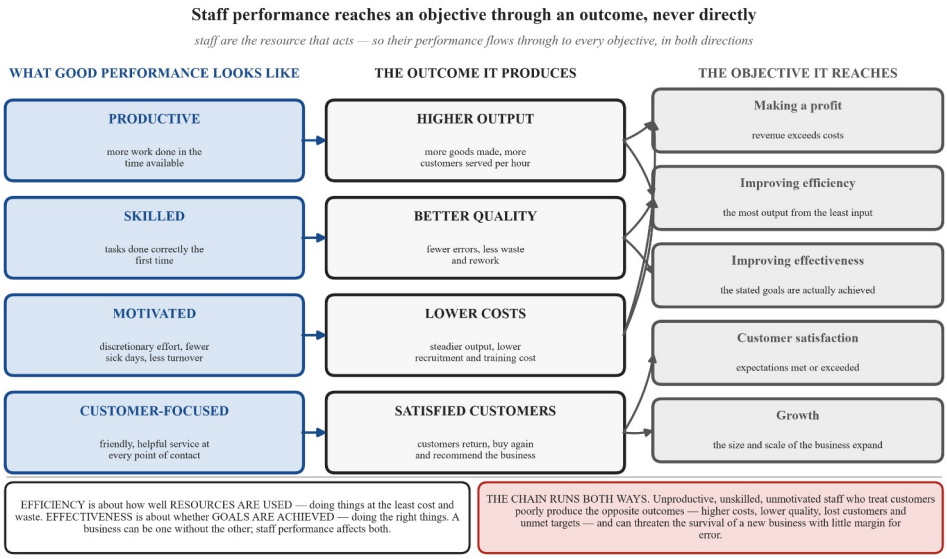
The relationship: staff performance → business outcomes → objectives. The central idea of this topic is that staff performance and business objectives are joined in a **causal chain**. Staff performance is the **cause**; the day-to-day **business outcomes** it produces — output, quality, costs, customer service — are the **bridge**; and the **objectives** are the **result**. Staff rarely achieve an objective *directly*; they achieve it **through the outcomes their performance produces**. Because staff (labour) are the resource that actually **carries out** almost everything a business does, their performance flows through to every objective.

Link 1 — well-performing staff drive the outcomes that achieve objectives. Each feature of good performance produces business outcomes that feed an objective:

- **Productive staff** get **more work done** in the time available — more goods made or more customers served per hour. This raises **output** and lowers the **labour cost per unit**, improving **efficiency**; the extra output that can be sold lifts **sales revenue** and therefore **profit**; and meeting production or sales targets makes the business more **effective**.
- **Skilled staff** complete tasks **correctly the first time**, so there are **fewer errors, less waste and less rework**. This improves **efficiency** (inputs are not wasted) and produces **higher-quality** goods and services, which raises **customer satisfaction** and helps the business meet its quality goals (**effectiveness**).
- **Motivated staff** put in **discretionary effort**, take **fewer sick days** and are **less likely to leave**. Lower absenteeism and turnover mean **steadier output** and **lower recruitment and training costs** (improving **efficiency** and **profit**), while their enthusiasm can generate **new ideas** that help the business **grow**.

- **Customer-focused staff** provide **friendly, helpful service**, so customers are **satisfied** (customer-satisfaction objective), **return and buy again**, and **recommend the business** to others. The repeat sales and referrals lift **revenue and profit** and support **growth**.

Link 2 — poor staff performance undermines objectives. The chain runs the same way in reverse. **Unproductive** staff produce **less output**, raising unit costs (poor efficiency) and missing targets (poor effectiveness). **Unskilled or careless** staff make **errors** that create **waste, rework and faulty products**, wasting resources and lowering quality. **Unmotivated** staff are **absent more often and leave more frequently**, forcing costly recruitment and disrupting output. **Staff who treat customers poorly** drive customers away, damaging customer satisfaction, sales and reputation. The combined effect is **higher costs, lower quality, lost customers and unmet targets** — so profit falls, the business becomes inefficient and ineffective, customers are dissatisfied, and growth stalls or reverses. Poor performance can even threaten the **survival** of a newly established business that has little margin for error.



Putting the chain together. Well-performing staff — productive, skilled, motivated and customer-focused — generate **high output, good quality, low costs and satisfied customers**, and those outcomes deliver the objectives of **profit, efficiency, effectiveness, customer satisfaction and growth**. Poor performance produces the opposite outcomes and undermines the same objectives. The relationship is also **reinforcing**: achieving objectives (for example profit) lets the business **reward and develop its staff**, which lifts performance further.

Key ideas to keep straight.

- **Performance works indirectly.** Staff do not achieve an objective by themselves — their performance produces **outcomes** (output, quality, costs, service), and those outcomes achieve the objective. The outcome is the **link in the chain**.
- **The chain runs both ways.** *Good* performance drives objectives up; *poor* performance drags them down. A complete answer can argue from either direction.
- **Match the feature to the objective.** Productivity → efficiency and output; skill and quality → effectiveness and customer satisfaction; motivation → lower costs and steadier output; customer focus → customer satisfaction and growth. Do not simply say "good staff are good for business" — show **which** feature drives **which** objective, and **how**.
- **Staff are the resource that acts.** Because employees carry out the business's work, their performance affects **every** objective, which is why staffing is so important to a newly established business.

Contemporary example — Atlassian, January 2024

Atlassian is a large enterprise software business, founded in Sydney in 2002, that develops team-collaboration and project-tracking products such as Jira and Confluence. On **17 January 2024** it published a report, *Lessons learned: 1,000 days of distributed at Atlassian*, setting out what it had measured after 1,000 days of its "Team Anywhere" policy, under which employees choose where they work each day. Atlassian reported that **92% of its employees said the policy allowed them to do their best work** and **91% said it was an important reason they stayed** with the

business. It also reported that, since Team Anywhere began, the number of **candidates for each advertised role** was **more than twice as high**, and that the **rate at which candidates accepted the jobs it offered** had **risen by 20%**.

The report shows a business deliberately testing the chain this subtopic teaches, and it did not claim the policy achieved an objective directly — it measured the **business outcomes** in between. Employees saying they can do their **best work** is a claim about **staff performance** itself; employees **staying** means lower **turnover**, so **recruitment and training costs** fall and **output is steadier**, and those outcomes feed **efficiency** and **profit**. More applicants for each role, and more of them accepting the offers made, mean the business can **fill its jobs from a larger field and secure the people it chooses**, so it is more likely to have the **skilled staff** its work requires — supporting **effectiveness**. Note the limit of the evidence: the 92% and 91% figures measure what employees **said**, not a direct count of output produced.

Source: Atlassian, "Lessons learned: 1,000 days of distributed at Atlassian", 17 January 2024 — https://www.atlassian.com/blog/distributed-work/distributed-work-report. Accurate as at July 2026.

Worked examples

Example 1 — scaffolded

Craft & Crumb is a newly opened bakery café. Explain how well-performing staff could help it achieve its objective of customer satisfaction.

Working	Comment
Well-performing staff at Craft & Crumb are skilled, productive and customer-focused — bakers who make consistent, high-quality products and counter staff who serve customers quickly and courteously.	Start from what "well-performing" means in this context.
Skilled bakers produce fresh, good-quality items with few mistakes, so customers receive the product they expected.	Link skill → quality (a business outcome).
Customer-focused counter staff greet customers warmly and serve them promptly, so customers have a pleasant experience.	Link customer focus → good service (a business outcome).
Because the products and the service both meet or exceed what customers expected, customers are pleased — the café achieves customer satisfaction.	Connect the outcomes to the objective.
∴ well-performing staff achieve customer satisfaction by delivering quality products and good service that meet customers' expectations.	State the conclusion.

Example 2 — scaffolded

SwiftStitch, a new activewear manufacturer, has hired several inexperienced machinists who work slowly and produce many faulty garments. Analyse how this poor staff performance could undermine SwiftStitch's objective of efficiency.

Working	Comment
Efficiency means using resources — labour, materials and time — to produce output with as little waste and cost as possible.	Define the objective so the causal links are clear.
Because the machinists work **slowly**, they produce **less output for each hour of labour paid**, so the labour cost of each garment rises.	First causal link: low productivity → higher cost per unit.
Because they produce **faulty garments**, fabric and thread are **wasted** and time must be spent **reworking or scrapping** the faulty items.	Second causal link: errors → wasted materials and rework.

Working	Comment
Higher labour cost per unit, plus wasted materials and rework, mean SwiftStitch **uses more inputs to produce each usable garment** — the definition of poor efficiency.	Combine the effects to reach the objective.
∴ poor staff performance undermines efficiency by lowering output per worker and wasting materials, so more inputs are consumed per unit of usable output.	Conclusion stating the causal relationship.

Example 3 — unscaffolded

Distinguish between the effect of well-performing staff and poorly-performing staff on the achievement of business objectives.

Well-performing staff are productive, skilled, motivated and customer-focused, so they generate **positive business outcomes** — plenty of output, work of a good standard, costs kept down and customers who are pleased — which **drive the achievement of objectives** such as efficiency, profit, effectiveness, growth and customer satisfaction. **Poorly-performing staff** are the opposite — slow, error-prone, unmotivated or indifferent to customers — so they generate **negative outcomes** — low output, poor quality, high costs and lost customers — which **undermine the same objectives**. The key difference is the **direction of the effect**: well-performing staff move the business **towards** its objectives, whereas poorly-performing staff move it **away** from them, even though both work through the same chain of business outcomes. ∴ staff performance can either help or hinder the achievement of objectives, depending on how well employees do their jobs.

Example 4 — unscaffolded

"A business gets well-performing staff by achieving its objectives, not the other way round." Evaluate this statement.

The statement **identifies a real effect but reverses the direction of the main relationship**. There is **genuine support** for it. A business that is meeting its goals has the **means to lift the performance of its people**: profit pays **competitive wages**, funds **training** and buys **reliable equipment** that lets employees work well; growth creates **promotion prospects and job security**, which attract stronger applicants and persuade good employees to stay; and staff who can see the business **succeeding** take pride in it and are **more willing to put in effort**. This is the **reinforcing** side of the relationship, and it is real. **However**, the statement mistakes that feedback for the primary link. In the causal chain, performance is the **cause** and the objective is the **result**: employees produce the **output, the quality, the costs and the service** on which every objective depends, so the profit, growth and reputation the statement relies on **cannot exist until staff have first done the work that generates them**. The point is clearest in a **newly established business**, which has **no profits, no reputation and no growth yet** to reward anyone with, and so must depend entirely on how well its people perform to earn those things in the first place. ∴ the relationship genuinely runs **both ways**, and the statement is right that achieving objectives helps a business **sustain** good performance — but it is wrong to reverse the order: staff performance is what **starts** the chain, and success only feeds back into performance once that chain is already running.

Practice questions

Scaffolded

Q1. Define the term *staff performance*.

Q2. Define the term *business objective*.

Q3. Identify the business objective described in each of the following: (a) using labour, materials and time so that as little as possible is wasted; (b) earning more revenue from sales than the business spends on costs; (c) expanding the business by opening a second outlet and hiring more staff.

Q4. List **four** characteristics of well-performing staff.

Q5. *TidyNest* is a newly established home-cleaning service. Its cleaners are reliable, thorough and friendly, and most customers book them again. (a) Identify **one** business objective TidyNest's staff are helping it achieve. (b) Explain how the cleaners' performance helps TidyNest achieve that objective.

Q6. Explain how each of the following features of well-performing staff produces a business outcome that helps achieve an objective: (a) productivity; (b) skill; (c) customer focus.

Unscaffolded

Q7. Describe what is meant by *well-performing staff*. *(2 marks)*

Q8. Distinguish between the objectives of **efficiency** and **effectiveness**. *(4 marks)*

Q9. Explain how **motivated** staff can help a business achieve its objective of making a profit. *(3 marks)*

Q10. Outline **one** way well-performing staff can help a business improve **efficiency**, and **one** way they can help it achieve **growth**. *(4 marks)*

Q11. *Pedal & Post* is a new bicycle-courier business deciding whether to invest in training its riders. Justify why improving staff performance would be an appropriate use of the owner's money. *(4 marks)*

Q12. "Poor staff performance only affects a business's profit." Discuss. *(4 marks)*

Q13. Explain why the performance of staff is especially important for a newly established business. *(3 marks)*

Q14. Compare how **skilled** staff and **customer-focused** staff each contribute to the achievement of business objectives. *(4 marks)*

Q15. *Case study.* **The Marigold Room** is a recently opened restaurant. Its head chef is highly skilled, but several waiters are unmotivated — they are often late, inattentive to diners and slow to clear tables. Online reviews praise the food but complain about the service, bookings have fallen, and the owner, Dev, says he "can't understand it, because the food is excellent". (a) Identify **one** business objective The Marigold Room is failing to achieve. *(1 mark)* (b) Analyse **one** way the waiters' poor performance is undermining the restaurant's objectives. *(3 marks)* (c) Propose and justify **one** action Dev could take to improve staff performance and the restaurant's objectives. *(4 marks)*

Q16. Analyse how the performance of a business's staff affects its achievement of the objective of **effectiveness**. *(4 marks)*

Q17. Evaluate the importance of staff performance to a business's ability to achieve its objective of customer satisfaction. *(6 marks)*

Q18. *Summit Sports* is a new sporting-goods store whose sales assistants are knowledgeable and productive but rarely suggest additional products or follow up with customers, and the store's sales have plateaued. Explain how the assistants' performance is currently helping Summit Sports achieve its objectives, and recommend how their performance could be improved to support growth. *(4 marks)*

Q19. *Extended response.* The people a business employs shape what it can achieve. Analyse the relationship between the performance of staff and the achievement of business objectives, and evaluate the view that staff performance is the single most important factor in whether a newly established business achieves its objectives. *(10 marks)*

Q20. In a report published on 17 January 2024, **Atlassian** stated that 92% of its employees said its "Team Anywhere" policy allowed them to do their best work, and that 91% said it was an important reason they stayed with the business. Analyse how the effects Atlassian reported could contribute to the achievement of its business objectives. *(4 marks)*

Answers

Q1. Staff performance is how well employees carry out their jobs — the quantity and quality of the work they produce and the extent to which they meet the standards expected. **Q2.** A business objective is a goal a business is trying to achieve. **Q3.** (a) improving efficiency; (b) making a profit; (c) growth. **Q4.** Any four of: productive; skilled/competent; motivated; customer-focused; reliable; produces quality work with few errors. **Q5.** (a) e.g. customer satisfaction (also acceptable: making a profit / growth). (b) Reliable, thorough, friendly cleaners meet or exceed customers' expectations, so customers are satisfied and rebook, generating repeat sales. **Q6.** Productivity → more output per hour → efficiency; skill → fewer errors/higher quality → effectiveness and customer satisfaction; customer focus → good service → customer satisfaction. **Q7.** Model response in solutions. **Q8.** Efficiency = how well resources are used (least waste/cost); effectiveness = the degree to which goals are achieved. They differ in resource-use vs goal-achievement. See solutions. **Q9.** Motivated staff work harder, are absent less and leave less, lowering costs and lifting output, so revenue exceeds costs → profit. See solutions. **Q10.** Efficiency: skilled/productive staff produce more with less waste. Growth: satisfied customers plus reliable revenue and new ideas provide the means to expand. See solutions. **Q11.** Training lifts riders' skill, speed and service, improving efficiency, customer satisfaction and repeat business — benefits that outweigh the cost for a new business. See solutions. **Q12.** Disagree overall — poor performance also harms efficiency, effectiveness, customer satisfaction and growth, not just profit. See solutions. **Q13.** A new business has no reputation and little margin; staff performance shapes early customers' impressions and its survival. See solutions. **Q14.** Both help achieve objectives through business outcomes; skilled staff drive quality/efficiency/ effectiveness, customer-focused staff drive satisfaction/growth. Similarity + difference. See solutions. **Q15.** (a) e.g. customer satisfaction (also acceptable: growth/profit — bookings falling). (b) Poor waiter service dissatisfies diners → bad reviews → fewer bookings. (c) e.g. motivation/training/clear service standards, justified. See solutions. **Q16.** Effectiveness = the degree to which set goals are reached; skilled staff produce work that meets the standard and productive staff finish it on time, so targets are hit rather than missed. See solutions. **Q17.** Evaluation — staff performance is vital to customer satisfaction (service and quality) but not the only factor (product, price, systems); judgement reached. See solutions. **Q18.** Knowledgeable, productive assistants give good service and efficiency (satisfaction, profit); to grow, improve up-selling/follow-up to raise sales per customer and referrals. See solutions. **Q19.** Model response in solutions. **Q20.** Staff who say they can do their best work are performing well (productive/skilled); staff who stay mean lower turnover → lower recruitment and training costs and steadier output → efficiency and profit (also effectiveness). See solutions.

Fully-worked solutions

Q7. *Well-performing staff* are employees who **carry out their jobs to a high standard** — they are **productive** (they get a large amount of work done), **skilled** (they complete tasks correctly with few errors), **motivated** (they are willing to put in effort) and **customer-focused** (they treat customers well), so that the **quantity and quality of their work meets or exceeds the standards the business expects**. *(1 mark for the idea of doing the job well/to standard; 1 mark for a supporting feature such as productive, skilled, motivated or customer-focused.)*

Q8. Efficiency is about **how well a business uses its resources** — its labour, time, materials and money — to produce its outputs; an efficient business **minimises waste and cost**, getting the **most output from the least input**. **Effectiveness** is about **the degree to which a business achieves its stated objectives** — an effective business is **doing the right things to reach its goals**, whether or not it does so cheaply. The key difference is what each measures: efficiency measures **resource use** (doing things at least cost), whereas effectiveness measures **goal achievement** (reaching the target). A business can be one without the other — it may use resources sparingly yet miss its goals, or hit its goals while wasting resources. *(2 marks per term correctly explained, including the point of difference — resource use vs goal achievement.)*

Q9. Motivated staff are **willing to put in effort and care about their work**. This helps a business make a **profit** in two linked ways. First, motivated employees are **more productive, take fewer sick days and are less likely to resign**, so the business gets **more and steadier output** and avoids the **cost of constantly recruiting and training replacements** — lowering its expenses. Second, their greater effort and reliability help produce **more goods or better service to sell**, lifting **sales revenue**. Because revenue rises while unnecessary costs fall, the gap between revenue and costs widens, so the business earns a **greater profit**. *(1 mark defining/identifying motivated behaviour; 1 mark a cost or output effect; 1 mark linking revenue exceeding costs → profit.)*

Q10. *Efficiency:* well-performing staff who are **skilled and productive** complete their work **quickly and correctly**, producing **more output with less wasted material, time and rework**, so the business uses **fewer inputs per unit of output** — improving efficiency. *Growth:* well-performing staff help the business **grow** by satisfying customers (who return and recommend the business) and by **generating the reliable revenue, reputation and new ideas** needed to **expand** — for example to add products or open another outlet. *(2 marks for the efficiency link: skilled/productive work → less waste/ more output per input; 2 marks for the growth link: satisfied customers/revenue/ideas → expansion.)*

Q11. Investing in training would be an **appropriate use** of Pedal & Post's money because, as a **newly established business**, its success depends heavily on the **performance of its riders**, who are the people customers actually deal with. Training would make riders **faster and more skilled** (improving **efficiency** and the number of deliveries completed), **safer and more reliable** (reducing costly errors and late or damaged deliveries), and **more customer-focused** (improving service so customers are satisfied and **book again**). These improvements directly lift the **repeat business and reputation** a new courier needs to generate sales and survive. Although training **costs money and time up front**, the resulting gains in efficiency, customer satisfaction and repeat sales **outweigh** that cost, especially for a business whose whole service *is* the performance of its riders. *(Justify = argue WHY appropriate, with benefits: 1 mark new business depends on rider performance; 1 mark training improves specific performance features; 1 mark these drive efficiency/satisfaction/repeat sales; 1 mark reasoned judgement that the benefits outweigh the cost.)*

Q12. The statement should be **largely rejected**. *Supporting view:* it is true that poor staff performance **does** harm profit — unproductive, error-prone staff raise costs and lose sales, reducing the gap between revenue and expenses. *Opposing view:* however, profit is **not the only** objective affected. Poor performance also damages **efficiency** (slow work and waste mean more inputs are used per unit), **effectiveness** (targets and goals are missed), **customer satisfaction** (poor quality or service drives customers away) and **growth** (a business losing customers and money cannot expand). Because staff carry out **everything** the business does, weak performance flows through to **every** objective, not just profit. *(Discuss = advantages/disadvantages of the view; no judgement required, but do not double-dip. 2 marks for the point supporting the statement — poor performance does hurt profit; 2 marks for the point against it — it also harms efficiency, effectiveness, customer satisfaction and/or growth.)*

Q13. The performance of staff is **especially important for a newly established business** because such a business has **no established reputation or loyal customer base** to fall back on. Every early customer's impression is shaped **directly by the staff** they deal with, so **well-performing staff** can win the **first satisfied, returning customers** the business needs, whereas **poor performance** can drive those scarce early customers away for good and produce **damaging word-of-mouth**. A new business also usually has **limited finances and little margin for error**, so the **wasted resources, lost sales and high costs** caused by poor performance can threaten its **survival**. Because staff are the resource that **carries out the business's work**, their performance can make the difference between a new business establishing itself and failing. *(1 mark new business lacks reputation/customer base; 1 mark staff shape early customers' impressions/first customers; 1 mark limited margin → performance affects survival.)*

Q14. In **both** cases the staff contribute to objectives **indirectly, through the business outcomes their performance produces** — neither achieves an objective on its own. *(similarity)* They differ in **which outcomes and objectives** they mainly drive. **Skilled** staff complete tasks **correctly with few errors**, producing **high-quality output and little waste**, which mainly improves **effectiveness** (goals such as quality targets are met) and **efficiency** (inputs are not wasted). **Customer-focused** staff provide **friendly, helpful service**, which mainly improves **customer satisfaction** and, through repeat purchases and referrals, supports **sales, profit and growth**. So skilled staff act chiefly on **quality and resource use**, whereas customer-focused staff act chiefly on the **customer relationship**. *(difference) (Compare = BOTH similarity AND difference. 1 mark for the similarity — both work through business outcomes to reach objectives; up to 3 marks for the difference — skilled staff → quality/ efficiency/effectiveness vs customer-focused staff → satisfaction/growth. A one-sided response is capped.)*

Q15. (a) **Customer satisfaction** — the reviews complain about the service and **bookings have fallen** (growth or profit is also acceptable, provided it is linked to the falling bookings). (b) The waiters' poor performance is undermining the restaurant's objectives because, although the **food is excellent**, customers experience the restaurant **through the service** as well as the food. Waiters who are **late, inattentive and slow** give diners a **poor experience**, so customers leave **dissatisfied despite the quality of the food**. Dissatisfied diners **write negative reviews and do not return**, and those poor reviews **deter new customers from booking** — which is why **bookings have fallen**. The waiters' performance is therefore turning what should be satisfied customers into lost ones, undermining **customer**

satisfaction and the restaurant's sales. *(Analyse = causal, applied to the case study: 1 mark poor service → dissatisfied diners despite good food; 1 mark → negative reviews/customers do not return; 1 mark → fewer bookings/lost sales, an objective undermined.)* (c) Dev could introduce a **motivation and performance-management approach for the waiters** — for example setting **clear service standards**, providing **customer-service training**, and **recognising or rewarding good service** (such as an incentive tied to positive reviews). *(propose)* This addresses the **root cause**, which is the waiters' **lack of motivation**, not the food. Clear standards and training would tell the waiters **exactly what good service looks like** and give them the skills to deliver it, while recognition would **motivate them to care** about diners' experience. As service improves, **diners become satisfied**, **reviews improve** and **bookings recover**, so the restaurant achieves **customer satisfaction** and lifts its sales again. This suits The Marigold Room because its problem is specifically **service performance**, while the food is already strong. *(justify) (1 mark propose a specific, relevant action; 1 mark explain what it entails; 1 mark link to improved staff performance/service; 1 mark justify why it addresses the restaurant's objectives. Must apply to the case study.)*

Q16. Effectiveness is the **degree to which a business reaches the goals it has set** — whether the targets are actually hit, regardless of what reaching them costs. Staff performance affects it through the **work employees actually deliver**. **Skilled** staff complete tasks **correctly the first time**, so what the business produces **meets the specifications and quality standards it set for itself** — the quality goal is reached rather than merely aimed at. **Productive** staff get **enough work finished in the time available**, so **production, sales and delivery targets are met on schedule**; if they cannot, the target is missed however well the business is resourced. **Motivated** staff are **reliably at work and see tasks through**, so output is **steady enough for the business to keep the commitments it has made** to customers and suppliers. In each case the performance produces a **business outcome** — work done correctly, finished on time, delivered consistently — and it is that outcome which turns a **stated goal into an achieved one**. The chain runs in reverse as well: **careless or unreliable staff cause rejected work, missed deadlines and broken commitments**, so the business **falls short of goals it had the resources to reach** — which is why a business can be well funded and well equipped and still be **ineffective**. *(Analyse = relationships/ causal effects, NOT pros and cons: 1 mark effectiveness identified as the degree of goal achievement; 1 mark a specific performance feature named; 1 mark that feature → a business outcome (work correct / finished on time / steady output); 1 mark that outcome → a stated goal or target being met — or missed, if the reverse chain is argued.)*

Q17. Staff performance is **highly important** to a business's ability to achieve **customer satisfaction**, though it is **not the only factor**. *In favour:* customers judge a business largely by the **product and the service they receive**, and both are produced by staff. **Skilled** staff make **good-quality products** and **customer-focused** staff provide **helpful, pleasant service**, so their performance directly determines whether customers' **expectations are met or exceeded** — the definition of customer satisfaction. **Poor** performance (faulty products, or rude or slow service) has the opposite effect and can quickly **destroy** satisfaction, as dissatisfied customers complain and leave. In this sense staff performance is the **most visible and direct influence** on customer satisfaction. *Against / limits:* customer satisfaction also depends on **other factors** outside individual performance — the **price** charged, the **quality and design of the product itself**, and the **systems and technology** the business uses (for example an easy booking or payment system) — as well as **management decisions** about what to offer. Even excellent staff cannot satisfy customers if the product is overpriced or poorly designed, and staff performance is itself **shaped by how well the business trains and motivates them**. *Judgement:* on balance, staff performance is **one of the most important — often the decisive — influences** on customer satisfaction, because staff are the point of contact that delivers both product and service; however, it achieves satisfaction **in combination with** a sound product, a fair price and good systems, rather than on its own. *(Evaluate = weigh both sides AND reach an evidence-based judgement. Up to 2 marks for the case in favour; up to 2 marks for other factors/limits; up to 2 marks for a sustained, justified judgement — a bare "advantages outweigh disadvantages" is not enough.)*

Q18. The assistants' performance is currently helping Summit Sports achieve its objectives because they are **knowledgeable and productive**: their product knowledge helps customers find what they need (supporting **customer satisfaction**) and their productivity means customers are **served quickly and efficiently**, keeping labour costs down and supporting **profit**. However, because they **rarely suggest additional products or follow up with customers**, each customer tends to buy only what they came for and may not return, so **sales per customer and repeat business are limited** — which is why sales have **plateaued** and the store is not **growing**. To support growth, Summit Sports could **train and encourage the assistants to improve this aspect of their performance** — for example by **suggesting complementary products** (up-selling) and **following up with customers** (such as a loyalty program or after-sale contact). This would **raise the value of each sale and bring customers back**, lifting revenue beyond its plateau and helping the store **grow**. *(2 marks: how current performance helps — knowledge/productivity →*

satisfaction/efficiency/profit; 2 marks: a recommendation improving performance — up-selling/follow-up → higher sales per customer/repeat business → growth.)

Q19. *Model response (10 marks).* **Staff performance** is how well employees carry out their jobs — the quantity and quality of their work and the extent to which they meet expected standards — and **business objectives** are the goals a business pursues, such as profit, efficiency, effectiveness, customer satisfaction and growth. The two are joined in a **causal chain**. Staff performance is the **cause**: **productive** staff raise output and lower unit costs; **skilled** staff produce quality work with little waste; **motivated** staff work hard, are reliable and stay; and **customer-focused** staff provide good service. These features generate **business outcomes** — high output, good quality, low costs and satisfied customers — which form the **bridge** in the chain. Those outcomes then **achieve the objectives**: high output and low cost deliver **efficiency** and, through sales revenue exceeding costs, **profit**; quality work and met targets deliver **effectiveness**; good service delivers **customer satisfaction**; and the resulting revenue, reputation and ideas fund **growth**. The chain also runs in **reverse**: poor performance produces low output, waste, high costs and lost customers, **undermining every objective**. Staff performance therefore achieves objectives **indirectly, through the outcomes it produces**, and the relationship is **self-reinforcing**, because achieving objectives such as profit lets the business reward and develop its staff, lifting performance further.

The view that **staff performance is the single most important factor** in whether a newly established business achieves its objectives is **strongly supported but should be qualified**. It is well supported because **staff are the resource that actually carries out the business's work** — they make the products, serve the customers and control quality and cost — so their performance flows through to **every** objective. For a **new business** with no reputation or loyal customers, the impression staff make on early customers can determine whether it gains repeat business and **survives at all**, which makes their performance exceptionally important. **However**, staff performance is **not the only factor**, and treating it as the single most important one overstates the case. Achieving objectives also depends on **adequate finance**, a **sound product**, sensible **pricing**, suitable **equipment and location**, and capable **management** — and staff performance is itself **largely a product of how well the business recruits, trains and motivates its people**. Even excellent staff cannot save a business with no customers, no cash or a flawed product. **On balance**, staff performance is **among the most important factors** — arguably the pivotal one, because employees carry out everything the business does — but it is most powerful **as part of a whole**, supported by sound management, finance and a good product, rather than being the single factor that outweighs all others. *(Full marks require: accurate definitions of staff performance and objectives; a clearly explained causal chain staff performance → business outcomes → objectives, ideally noting the reverse (analyse); and a sustained, two-sided evaluation of the "single most important factor" view that reaches a justified judgement.)*

Q20. The two figures Atlassian reported sit at **different points in the causal chain**, and both work through **business outcomes** rather than achieving an objective directly. The **92%** figure is about **staff performance** itself — employees judging that they are able to do their **best work**, that is, to be **productive** and to complete tasks to the standard expected. Performance of that kind produces the outcomes of **high output and good-quality work**, which lower the **labour cost per unit** (improving **efficiency**) and make it more likely that production and service targets are **actually met** (improving **effectiveness**). The **91%** figure is about **motivation and retention** — employees identifying the policy as a reason they **stay**. Lower **staff turnover** produces two further outcomes: the business avoids the **cost of repeatedly recruiting and training replacements**, and it keeps **experienced staff**, so **output is steadier** and skills are not lost each time someone leaves. Lower costs and steadier output widen the gap between **revenue and expenses**, supporting **profit**, and mean **fewer resources are consumed per unit of output**, supporting **efficiency**. The chain therefore runs **staff performance → business outcomes → objectives** in both cases. *(Analyse = causal relationships, not pros and cons: 1 mark linking the 92% figure to a performance feature such as productivity or quality of work; 1 mark that feature → a business outcome (output, quality or cost); 1 mark linking the 91% figure to lower turnover → lower recruitment/training costs or steadier output; 1 mark connecting the outcomes to a named objective such as efficiency, profit or effectiveness. Accept a response that notes the figures are employees' own reports rather than direct measures of output, provided the causal chain is still made.)*

Theory

A business cannot make anything, sell anything or serve anyone without people to do the work, so before it can define a role or advertise a vacancy it must work out **what people it actually needs**. A business's **staffing needs** are the **number of employees it requires, the positions and employment arrangements it needs them in, and the knowledge, skills and ideas those employees must contribute**, so that it can operate and achieve its objectives. **Identifying staffing needs** is working this out: *how many* people are needed, *what work* they will do, *when*, and — above all — *what they must bring*.

A staffing need has **four dimensions**: the **number** of employees and hours required; the **type of position** (production, sales and service, administration, supervision); the **type of employment** (full-time, part-time, casual or fixed-term); and the **capability** each position must contribute. The fourth is the heart of this subtopic. A business never simply needs "three more staff": it needs three people who **know** certain things, **can do** certain things and can **contribute** ideas — which is why two applicants filling the same headcount can be worth entirely different amounts to it.

Types of employment. Most Victorian businesses fall under the national workplace relations system of the ***Fair Work Act 2009*** **(Cth)**. **Full-time** employees are ongoing and work an average of 38 ordinary hours a week with paid leave, suiting **continuous, predictable** work; **part-time** employees are ongoing on fewer, regular hours with **pro-rata** leave; **casual** employees are engaged with **no firm advance commitment to ongoing work** and paid a **casual loading** (25 per cent under most modern awards) instead of paid leave, suiting **irregular or seasonal** demand; **fixed-term** employees are engaged for a set period. A need can also be met without employing anyone, through an **independent contractor** or by **outsourcing** a function (16A covers minimum entitlements).

The knowledge, skills and ideas staff can contribute. These three are genuinely different things, and a useful way to hold them apart is: **knowledge is what an employee *knows*; a skill is what an employee *can do*; an idea is what an employee *can suggest or improve*.**

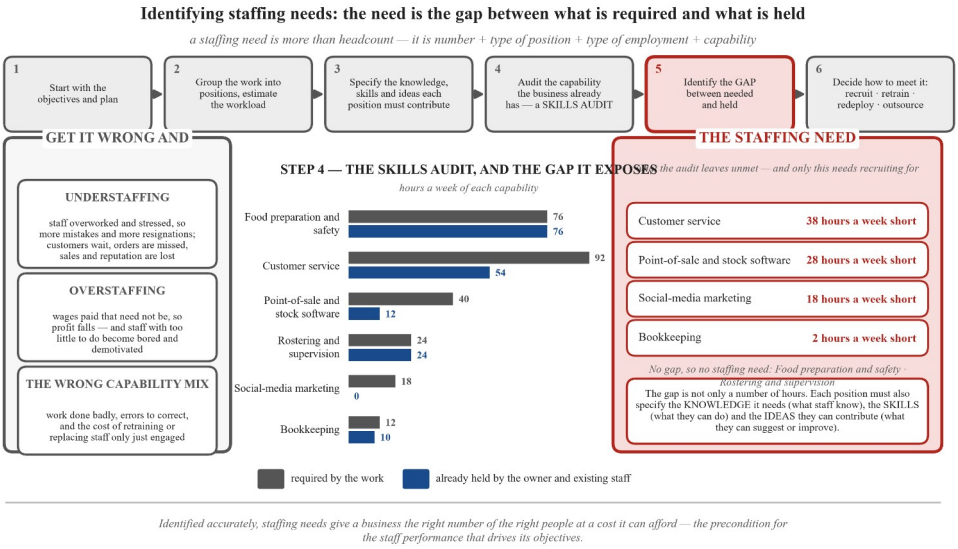
Knowledge is the information, facts and understanding an employee has built up through education, qualifications, training and experience — **technical and product knowledge**, **industry and market knowledge**, **knowledge of customers**, **knowledge of the business's own systems**, and **knowledge of legal requirements** such as food safety. It contributes by enabling **sound decisions and fewer mistakes**: staff who understand the product recommend the right one, staff who understand the equipment do not damage it, and staff who understand the law keep the business compliant. Some knowledge is **legally required**, so the law itself creates a staffing need: a class 1 or class 2 food premises must have a trained **food safety supervisor** under the ***Food Act 1984*** **(Vic)**; child-related work requires a **Working with Children Check** under the ***Worker Screening Act 2020*** **(Vic)**; and licensed trade work must be done by a licensed worker.

Skills are the practical abilities an employee has to **perform tasks**, developed through training and practice: **technical or trade skills** (operating machinery, using software, preparing food), **interpersonal skills** (communicating, serving customers, teamwork, handling complaints), **organisational skills** (planning, prioritising, meeting deadlines), **problem-solving skills**, and **leadership skills** (supervising, delegating, training others). Skills contribute by getting the work **done correctly, quickly and to standard**, and skilled staff need **less supervision**. Knowledge and skills are **not the same thing**, so a business must identify **both**.

Ideas are the suggestions, insights and creative thinking employees contribute — proposals for new products, improvements to how work is done, ways of cutting waste, and solutions to problems the business has not solved. Staff are exceptionally well placed to generate them, because they **do the work every day and deal with customers directly**, so they see inefficiencies and opportunities an owner looking at the business from above never sees. Ideas contribute by driving **innovation and continuous improvement** — better processes lift efficiency, new product ideas open up sales — each capable of becoming a **competitive advantage**; and staff whose ideas are acted on feel **valued**. Ideas are the dimension most easily overlooked: a business that identifies its needs as a list of qualifications and duties may end up with staff who can **perform** the work but never **improve** it.

How a business identifies its staffing needs. Identification is a deliberate process, not a guess:

1. **Start with the objectives and plan**, and break the operations into **the work that must be done** — producing the goods or services, serving customers, ordering stock, keeping records, supervising.
2. **Group the work into positions and estimate the workload** — the hours each function requires, allowing for **peak periods** and leave, which sets the number of staff and the employment mix.
3. **Specify the knowledge, skills and ideas each position must contribute**, including any qualification, licence or clearance the law requires.
4. **Audit the capability the business already has.** A **skills audit** reviews the qualifications, skills and experience of existing staff — including the owner, who in a small business often covers several roles personally.
5. **Identify the skills gap** — the difference between the capability the business **needs** and the capability it **has**. That gap *is* the staffing need.
6. **Decide how to meet it** — recruit, retrain, redeploy, change the employment mix, or outsource — and **review** regularly, because needs change whenever the business grows or changes.



Factors affecting staffing needs. How large and specialised those needs are depends on the **size and stage** of the business, since a start-up owner often does many jobs at once; the **nature of the product or service**; the **objectives and growth plans**; **demand patterns**, since seasonal peaks create a need for flexible casual staffing; the **operating hours and number of sites**; the **finance available**, since wages must be affordable at award or minimum-wage rates; **legal requirements**, as some positions need a particular qualification; and **developments in technology** (14C).

Why getting it right matters. Understaffing — too few staff or hours for the work — leaves staff **overworked and stressed**, so they make more mistakes and are more likely to resign, while customers wait longer, orders are missed and **sales and reputation** are lost. **Overstaffing** means the business **pays wages it does not need to pay**, reducing profit, while staff with too little to do become **bored and demotivated**. **The wrong capability mix** means work done badly, errors to correct and the cost of **retraining or replacing** staff only just engaged. Identified accurately, staffing needs give a business the **right number of the right people at a cost it can afford** — the precondition for the staff performance that drives its objectives (14A), and the first step before it defines the role and fills it (Chapter 15).

Key ideas to keep straight.

- **Staffing needs are more than headcount** — they are **number + type of position + type of employment
    - capability**. An answer that only discusses "how many staff" misses the dot point.
- **Knowledge, skills and ideas are three distinct contributions.** Knowledge is what staff **know**; skills are what staff **can do**; ideas are what staff **can suggest or improve**. Strong answers name all three *and* say what each one **does for** the business.
- **Ideas are a real staffing need, not a bonus** — staff do the work and meet the customers, so they are the best source of improvement a business has.
- **The need is the *gap*** — the difference between the capability required and the capability already in the business, which is why a **skills audit** comes before any hiring.

- **Identify the need before filling it.** How the business then defines the role and finds the person (job analysis, recruitment, selection) is Chapter 15; how technology changes those needs is 14C; how staff performance drives objectives is 14A.

Contemporary example — BHP, July 2024

BHP is a mining business whose Western Australia Nickel operations included the Mt Keith and Leinster mines, the Kalgoorlie smelter and the Kwinana refinery. On 11 July 2024 it announced that these operations, together with development of the West Musgrave project, would be **temporarily suspended**: a transition period beginning in July 2024, operations suspended from **October 2024**, and handover activities completed by December 2024. BHP attributed the decision to a global oversupply of nickel and said it intended to review the suspension by February 2027. On staffing, it stated that every frontline employee would be **offered another role within BHP or the choice of a redundancy**.

The announcement shows **staffing needs being recalculated when what a business plans to produce changes**. A decision of this kind is not only about **number**: it changes which **positions** the business requires and **where** they are, because holding assets ready for a possible restart is not the same work as mining and processing. The offer of another role treats the need as a question of **capability** rather than headcount — the **knowledge and skills** those employees held remained useful elsewhere in the business, so a gap at another operation could be closed by **redeploying** people already employed rather than by recruiting. It also illustrates the last step in identifying staffing needs: **reviewing them**, because a business's needs change whenever the business itself changes.

Source: BHP, "Western Australia Nickel to temporarily suspend operations", 11 July 2024 — https://www.bhp.com/news/media-centre/releases/2024/07/western-australia-nickel-to-temporarily-suspend-operations. Accurate as at July 2026.

Worked examples

Example 1 — scaffolded

Halverton Joinery is a newly established workshop that will build custom kitchen and wardrobe cabinets to order. The owner, Marit, is a qualified cabinetmaker who will personally do the design work, quoting and customer contact. Explain how Marit could identify the staffing needs of the business.

Working	Comment
Start from the work the business must do: designing and quoting jobs, machining and assembling cabinets, finishing and installing them, ordering timber and hardware, and keeping the financial records.	Break the operations into the work required.
Marit already covers the design, quoting and customer contact, so the remaining work — machining, assembly, finishing and installation, plus the bookkeeping — is the **skills gap**, and therefore the staffing need.	Subtract the capability already held (including the owner's); the gap *is* the need.
Marit converts the gap into positions: a **full-time cabinetmaker** for continuous work, a **casual installer** for delivery weeks, and a **part-time bookkeeper** — or the bookkeeping could be outsourced.	Match number and type of employment to how the work arises.
Each position needs stated capability: the cabinetmaker needs trade **knowledge** of timbers and joinery methods, the **skills** to machine and assemble accurately, and **ideas** about less wasteful ways to build.	Specify the knowledge, skills and ideas required.
∴ Marit identifies the staffing needs by listing the work the business must do, subtracting what it can already do, and turning the gap into positions with defined capability.	State the conclusion.

Example 2 — scaffolded

Penvale Studio is a small graphic-design business with three designers who produce logos, packaging and printed materials. It has won an ongoing contract that also requires **short animated videos** — work none of the designers has ever done. Explain how a skills audit would help Penvale identify its staffing need.

Working	Comment
A skills audit reviews the qualifications, skills and experience existing staff hold. The new contract requires animation software skills, video editing and an understanding of motion and timing — capabilities the business now **needs**.	Define the tool, then establish the capability the new work requires.
The audit shows the three designers have strong **static** design skills and product knowledge, but none has animation or video-editing skills.	Establish the capability the business **has**.
The **skills gap** is therefore animation and video production — a need created by work of a *different kind*, not by more of the existing work.	Identify the gap precisely: capability, not headcount.
Penvale can now decide **how** to meet it: retrain a willing designer, engage a part-time or casual animator, or contract the work out.	Convert the identified need into options.
∴ the audit shows Penvale exactly which capability it lacks, so it meets the contract's requirements rather than simply hiring "another designer".	State the conclusion.

Example 3 — unscaffolded

Distinguish between the **knowledge** and the **ideas** staff can contribute to a business.

The **knowledge** staff contribute is the **information, facts and understanding they already hold** — built up through qualifications, training and experience — such as technical understanding of the product, knowledge of the industry and customers, or knowledge of legal requirements like food safety. It contributes by enabling **sound decisions, fewer errors and compliance**, and by giving customers confidence in the advice they receive. The **ideas** staff contribute are **suggestions and creative thinking about how the business could be different or better** — a new product, an improved process, a way of reducing waste — generated because staff do the work daily and deal with customers directly, and they contribute by driving **innovation and continuous improvement**. The key difference is that knowledge is **what staff already know and can apply to the work as it stands**, whereas ideas are **what staff can propose to change** — so knowledge keeps the business running well while ideas move it forward. ∴ a business should specify both: people who know enough to do the work properly *and* who will think about how to do it better.

Example 4 — unscaffolded

"A business establishing itself should identify its staffing needs on the basis of skills and experience alone — ideas can come later." Evaluate this statement.

The statement is **partly justified but ultimately too narrow**. There is a **strong case** for it: a new business has **no established systems, reputation or margin for error**, so its most urgent need is people who can **do the work correctly from day one** without lengthy training. Skills and experience are also the easiest requirements to **specify and verify**, and some are **legally required**. **However**, treating ideas as something that "can come later" understates their value in exactly the situation described. In a business that is **establishing itself, almost nothing is fixed** — the product range, processes and customer experience are all still being formed — so this is the stage at which staff suggestions have the **greatest influence**. Staff who deal with customers daily see problems the owner cannot, so excluding ideas risks building a business that **can operate but cannot improve**. ∴ the statement should be **only partly accepted**: skills and experience are rightly the **first** requirement a new business identifies, but ideas are a **genuine staffing need in their own right**, not a luxury to be deferred, and the strongest identification specifies all three contributions together.

Practice questions

Scaffolded

Q1. Define the term *staffing needs*.

Q2. List **three** things a business must determine when identifying its staffing needs.

Q3. For each of the following, identify whether the employee is contributing **knowledge**, a **skill** or an **idea**: (a) an employee who has completed a commercial cookery qualification and understands food-safety requirements; (b) an employee who listens carefully to customers and explains the products clearly; (c) an employee who suggests moving the most popular stock closer to the packing bench.

Q4. Explain what is meant by a *skills gap*.

Q5. Thorncastle Hardware is a new hardware and garden-supply store opening in a growing outer suburb. It will trade seven days a week and offer advice on tools, paint and plumbing fittings. (a) Identify **one** staffing need Thorncastle Hardware would have. (b) Explain **one** type of knowledge its staff would need to contribute.

Q6. Explain **one** problem caused by **understaffing** and **one** caused by **overstaffing**.

Unscaffolded

Q7. Describe **one** way a business can identify its staffing needs. *(2 marks)*

Q8. Explain how the **knowledge** staff contribute can help a business achieve its objectives. *(3 marks)*

Q9. Distinguish between the **knowledge** and the **skills** staff contribute to a business. *(4 marks)*

Q10. Explain why a business establishing itself needs to identify the **number and type** of staff it requires. *(3 marks)*

Q11. Compare the contribution staff **skills** make to a business with the contribution staff **ideas** make. *(4 marks)*

Q12. Analyse how conducting a **skills audit** of its existing staff helps a business identify its staffing needs. *(6 marks)*

Q13. Discuss a business's decision to meet its staffing needs mainly by employing **casual** staff. *(6 marks)*

Q14. Justify why a business should treat the **ideas** staff can contribute as a genuine staffing need. *(4 marks)*

Q15. Propose and justify **one** way a business could meet a staffing need it has identified. *(4 marks)*

Q16. *Case study.* **Thistledown Veterinary Clinic** has been open six months. Its owner, Nadim, is a registered veterinarian who currently performs every consultation and operation, answers the phone, books appointments and orders supplies. Demand has grown quickly: the clinic now turns clients away, Nadim regularly works sixty hours a week, and several clients have complained that calls go unanswered. Nadim wants to begin consulting on Saturdays and to sell pet-food and preventative-health products. (a) Identify **one** staffing need Thistledown Veterinary Clinic has. *(1 mark)* (b) Explain the **knowledge and skills** a veterinary nurse would need to contribute. *(3 marks)* (c) Analyse how accurately identifying its staffing needs would help Thistledown achieve its business objectives. *(4 marks)*

Q17. Evaluate the view that the **skills** staff contribute are more important to a business than the **knowledge and ideas** they contribute. *(6 marks)*

Q18. Brackendale Party Hire supplies marquees, tables and chairs for weddings and parties. Demand is heavy from October to March and very light over winter. Explain **one** factor affecting Brackendale's staffing needs, and recommend how the business could meet those needs. *(4 marks)*

Q19. *Extended response.* A business is only as capable as the people it employs. Analyse how a business identifies its staffing needs, including the knowledge, skills and ideas staff can contribute, and evaluate the view that the **ideas** staff contribute are as valuable as their knowledge and skills. *(10 marks)*

Q20. *Contemporary example.* On 11 July 2024, **BHP** announced that its Western Australia Nickel operations would be temporarily suspended from October 2024, and stated that every frontline employee would be offered another role

within BHP or the choice of a redundancy. Analyse how a decision of this kind changes a business's **staffing needs**. *(6 marks)*

Answers

Q1. The number of employees a business requires, the positions and employment arrangements it needs them in, and the knowledge, skills and ideas those employees must contribute, so it can operate and achieve its objectives. **Q2.** Any **three** of: the number of staff/hours required; the positions needed; the type of employment (full-time, part-time, casual, fixed-term); the knowledge, skills or ideas staff must contribute; when and where staff are needed; any qualification or licence legally required. **Q3.** (a) knowledge; (b) skill; (c) idea. **Q4.** The difference between the capability (knowledge and skills) a business needs and the capability its existing staff already have. See solutions. **Q5.** (a) e.g. sales and service staff able to cover seven-day trading, or a weekend supervisor. (b) e.g. product knowledge of tools, paint and plumbing fittings, so staff can advise customers correctly. See solutions. **Q6.** Understaffing: e.g. staff overworked and stressed → errors, absenteeism, resignations, poorer service and lost sales. Overstaffing: e.g. wages paid for work that does not exist → lower profit, bored and demotivated staff. See solutions. **Q7.** e.g. break the work required to meet the objectives into tasks and positions and estimate the hours each needs; or conduct a skills audit and identify the gap. See solutions. **Q8.** Knowledgeable staff make sound decisions, avoid errors, advise customers credibly and keep the business compliant → quality, satisfaction, efficiency and objectives achieved. See solutions. **Q9.** Knowledge = what staff **know** (facts, understanding, qualifications, experience); skills = what staff **can do** (practical ability to perform tasks). Both must be addressed. See solutions. **Q10.** Number determines whether the work can be covered without over- or understaffing; type (position and employment arrangement) matches staff to how the work actually arises. See solutions. **Q11.** Similarity: both are contributions that help achieve objectives and both should be specified when identifying staffing needs. Difference: skills get the existing work done correctly, whereas ideas improve what the business does. Both sides required. See solutions. **Q12.** Causal: the audit reveals capability held → compared with capability required → gap identified → the gap defines the staffing need and how to meet it (retrain vs recruit vs outsource). See solutions. **Q13.** Discuss — advantages (flexibility for peaks, no paid leave accruing, cost matched to demand) and disadvantages (casual loading, uncertain availability, higher turnover, lost knowledge); no judgement required. See solutions. **Q14.** Justify — staff see problems the owner cannot; ideas drive improvement, efficiency, new products and competitive advantage; acting on them lifts motivation; they cost nothing extra. See solutions. **Q15.** Propose one way (retrain/upskill, recruit, redeploy, change the employment mix, or outsource) + argue why it suits the identified need. See solutions. **Q16.** (a) e.g. a second veterinarian, a veterinary nurse, or a receptionist. (b) Knowledge of animal health, medications and clinic procedures; skills in handling animals, assisting in surgery and communicating with anxious clients. (c) Accurate identification → right staff in right roles → Nadim freed for consultations, calls answered, Saturday trading possible → satisfaction, revenue, growth. See solutions. **Q17.** Evaluate — skills are essential, but knowledge directs them correctly and lawfully and ideas drive improvement; reach an evidence-based judgement (skills are necessary but not sufficient). See solutions. **Q18.** Factor: strongly seasonal demand. Recommendation: a small permanent core plus casual staff engaged for the October–March peak. See solutions. **Q19.** Model response in solutions. **Q20.** Causal: market conditions changed → the production the business had planned at those sites stopped → the number of staff, the positions required and where they were required all changed, not just headcount → the knowledge and skills those employees held were still needed elsewhere, so an identified need could be met by redeploying rather than recruiting → staffing needs must be reviewed whenever the business changes. See solutions.

Fully-worked solutions

Q4. A **skills gap** is the **difference between the capability a business needs and the capability it already has**. The business works out what knowledge and skills the work requires to achieve its objectives, then reviews — through a **skills audit** — the qualifications, skills and experience its existing staff, including the owner, already hold. Whatever it needs but does not have is the gap, and that gap **is** the staffing need. Identifying it matters because it may reveal that the business does not need more people at all, only different capabilities in the people it already has.

Q5. (a) Thorncastle Hardware needs **sales and service staff able to cover seven-day trading** — which, because the store opens every day and demand will peak at weekends, means **full-time or part-time staff for weekdays and casual staff for weekends**, plus someone to **supervise** when the owner is absent. (b) Its staff need **technical product knowledge** of the tools, paint and plumbing fittings the store sells: what each product does, which suits which job, and how they differ. Because the store's offer is **advice** as well as goods, staff who understand the products can **recommend the right item**, so customers complete their jobs successfully, trust the advice and return, whereas staff without that knowledge would sell the wrong items and lose customers to competitors.

Q6. Understaffing — too few staff, or too few hours, for the work required — means existing staff must **absorb more work than they can reasonably do**. They become **overworked and stressed**, make more mistakes and are more likely to **resign**, while customers wait longer for poorer service and orders are missed, costing sales and reputation. **Overstaffing** — more staff or hours than the work requires — means the business **pays wages for work that does not exist**, **reducing profit**; staff with too little to do become **bored and demotivated**, and the business may later have to make **redundancies**, which are costly and damaging to morale.

Q7. One way a business can identify its staffing needs is to **break the work required to achieve its objectives into tasks and positions and estimate the hours each requires**. The business lists every function it must perform — producing the goods or services, serving customers, ordering stock and keeping records — groups those functions into positions, and works out the hours each needs, allowing for peak periods. This tells it **how many staff it needs, in what positions and on what employment arrangements**.

Q8. The **knowledge** staff contribute — the facts and understanding they hold from qualifications, training and experience — helps a business achieve its objectives by improving the **quality of what it does and the decisions it makes**. Staff who understand the product, the equipment and the processes complete work **correctly the first time**, so there are **fewer errors, less waste and less rework**, improving **efficiency** and protecting **profit**. Staff who understand the industry and the customers give **accurate, credible advice**, so customers get what they need and **return**, supporting satisfaction and growth. Knowledge of legal requirements — food safety, workplace safety, privacy — keeps the business **compliant**, avoiding fines and reputational damage.

Q9. *(Distinguish — both must be addressed and the point of difference stated.)* The **knowledge** staff contribute is **what they know**: the facts, information and understanding built up through education, qualifications, training and experience — technical understanding of the product, knowledge of the industry and its customers, of the business's own systems, and of legal requirements. The **skills** staff contribute are **what they can do**: the practical abilities to perform tasks, developed through training and practice — technical or trade skills, interpersonal and customer-service skills, organisational skills, problem-solving and leadership. The difference is that knowledge is **understanding that informs the work**, while skill is **the ability to actually carry the work out**: an employee may *know* what excellent service looks like without being *able* to deliver it under pressure. ∴ a business must specify both — what the person must **know** and what they must be able to **do** — because either alone leaves the work only half covered.

Q10. A business establishing itself must identify the **number** of staff it needs because getting this wrong is immediately costly: too few leaves the work uncovered, so staff are **overworked** and sales are lost, while too many means it **pays wages for work that does not exist**, which a new business with limited finance can rarely afford. It must identify the **type** — the positions required and whether each should be full-time, part-time or casual — because this **matches staff to the way the work actually arises**: continuous work suits permanent employees, while irregular or seasonal peaks are better covered by casuals. Together these give the new business **the right people at the right times at a cost it can afford**, which is essential when it has little margin for error.

Q11. *(Compare — BOTH a similarity and a difference are required.)* **A similarity** is that skills and ideas are both **contributions employees make that help the business achieve its objectives**, and both should be **specified when the business identifies its staffing needs** rather than left to chance. **A difference** lies in what each contributes. **Skills** are the practical abilities to **perform the work as it currently stands** — operating equipment, serving customers, keeping records — so their contribution is **immediate and operational**: work is completed correctly and to standard, producing the output, quality and service the business depends on. **Ideas** are suggestions about **how the business could be different or better** — a new product, a faster process — so their contribution is **developmental and longer-term**, driving innovation and competitive advantage. In short, skills **run** the business well while ideas **improve** it, which is why a business should identify a need for both.

Q12. *(Analyse — show the causal chain, not a list of benefits.)* A **skills audit** helps a business identify its staffing needs through a clear sequence of effects. First, the audit **reviews the qualifications, skills and experience existing staff already hold** — including the owner, who often covers several functions — producing an accurate picture of the capability the business **has**. Second, it is **compared with the capability the business needs**, derived from its objectives and the work required to achieve them. Third, the comparison **exposes the skills gap**: the knowledge and skills the business requires but does not possess. Because the gap is what the business is actually short of, **the gap defines the staffing need** — and defines it in terms of *capability*, not merely headcount. This matters, because without an audit a business assumes that being busy means it needs "another person", when it may need a **different** capability, or already hold an unused skill that could be **redeployed**. Knowing the gap then lets it choose **how** to meet

it — **retraining**, **recruiting** or **outsourcing**. ∴ the skills audit converts a vague sense of being short-staffed into a **precisely defined gap between capability held and capability required**, making the identified staffing need accurate and actionable.

Q13. *(Discuss — advantages and disadvantages; no judgement required; avoid double-dipping.)* Meeting staffing needs mainly through **casual** employment — engaging staff with no firm advance commitment to ongoing work — has real benefits and real costs. On the **positive** side, it gives the business **flexibility**: hours rise in busy periods and fall when demand does, so the workforce **matches the work actually available** and the business avoids paying for idle time. Because casual employees receive a **casual loading in place of paid annual and personal leave**, the business also avoids accruing leave liabilities, which suits a new business with **uncertain demand and limited finance**. On the **negative** side, that loading means a **higher hourly rate** for every hour worked, so heavy reliance on casuals can cost more than permanent staffing where the work is steady. Casual staff also have **no guaranteed hours and may decline shifts**, so the business cannot always rely on people being available; **turnover tends to be higher**, so it repeatedly loses staff it has trained and sees its **accumulated knowledge of products, systems and regular customers walk out the door**; and casuals may feel **less committed**, which shows in service quality. Casual staffing therefore buys **flexibility and a cost that moves with demand**, at the price of **higher rates, less reliability and weaker continuity of knowledge**.

Q14. *(Justify — argue why, with reasoning.)* A business should treat the **ideas** staff can contribute as a **genuine staffing need** rather than an optional extra. First, **staff are the best-placed source of improvement the business has**: they perform the work every day and deal directly with customers, so they see the inefficiencies and frustrations an owner viewing the business from above cannot, and staff who have worked elsewhere bring **perspectives the business does not already contain**. Second, their ideas produce **real business outcomes** — a better process cuts cost, a new product idea opens up sales — so ideas feed directly into the objectives the business is pursuing and can become a **competitive advantage**. Third, ideas cost **nothing extra to obtain** from people the business already employs, and **acting on them lifts motivation and retention**, because staff whose suggestions are taken seriously feel **valued**. Against this, not every suggestion will be workable — an argument for **assessing** this capacity carefully, not for ignoring it. ∴ treating ideas as a staffing need is justified because a business that identifies only skills and qualifications ends up with staff who can **perform** the work but never **improve** it.

Q15. *(Propose and justify — do more than name the option; argue why it suits the identified need.)* One way a business could meet an identified staffing need is to **retrain and upskill an existing employee to cover the missing capability** rather than engage someone new — for example funding a willing employee to complete the training the new work requires, then moving them into that part of the role. This is **well suited** where the skills audit shows the gap is one of **capability rather than headcount**: the business has enough people, but nobody who can do a particular kind of work. It **directly closes the identified gap**, using someone who **already knows the business's products, systems and customers**, so no accumulated knowledge is lost. It **avoids the cost and risk of recruiting** an unknown outsider, and **lifts motivation and retention**, because an employee offered new skills sees a future in the business. Retraining takes time and money — but where the gap is a specific, learnable capability these costs are usually **outweighed** by the speed and certainty gained. ∴ retraining closes the capability gap the business has actually identified while preserving the knowledge and commitment it already has. *(Recruiting externally, redeploying, changing the employment mix or outsourcing are equally acceptable if justified.)*

Q16. (a) Any **one** of: a **second veterinarian**; a **veterinary nurse**; a **receptionist or administrative assistant** to answer calls, book appointments and order supplies. (b) *(Explain — knowledge and skills, applied to the clinic.)* A veterinary nurse would need to contribute **knowledge** of **animal health and common conditions, medications and dosages, sterile procedure and the clinic's own systems** — including the record-keeping and appointment routines Nadim currently manages personally — so that treatment is safe and accurate. The nurse would also need **skills**: the practical ability to **handle and restrain distressed animals safely**, to **assist during consultations and surgery**, to **administer treatments and prepare equipment**, and the **interpersonal skills** to deal with clients anxious about a sick pet. Because these are the tasks Nadim currently performs alone, a nurse contributing them would **free Nadim to concentrate on consultations and operations**, where the clinic's capacity is most constrained. (c) *(Analyse — causal, applied to the case study's objectives.)* The clinic's problem is not simply that it is busy, but that **one person is covering several quite different functions** — clinical work, reception and ordering — so identifying the need properly means recognising that Thistledown requires a **receptionist** and a **veterinary nurse** as well as, in time, a **second veterinarian**. Filling those needs would mean **calls are answered and appointments booked promptly**, restoring **customer satisfaction**; it would **shift Nadim's sixty hours from administration into consulting**, so the

clinic can see the clients it is currently **turning away** and open on **Saturdays**, lifting **revenue and profit**; and it would create the capacity to launch the **pet-food and preventative-health line**, supporting **growth**. It also protects Nadim from the **overwork and errors** that threaten the quality of care in a clinic depending on one registered veterinarian. ∴ by identifying exactly which capabilities it lacks — rather than simply working harder — Thistledown converts a staffing shortage into the capacity to satisfy clients, expand its services and grow.

Q17. *(Evaluate — weigh both sides and reach an evidence-based judgement.)* The view that the **skills** staff contribute are more important than their **knowledge and ideas** is **partly supported but overstated**. *In favour:* skills are the capability that **actually gets the work done**. A business is judged on the goods and services it delivers, and those are produced by staff who can operate the equipment, prepare the product and serve the customer; without that practical ability, nothing the business needs to happen happens at all. Skills are also the easiest contribution to **specify and test**, and some — licensed trade work, for instance — are **legally required**. *Against / limits:* the view nonetheless understates the other two contributions. **Knowledge** is what makes skilled work **correctly directed**: an employee may be technically capable yet, without understanding the products, the customers or the legal requirements, recommend the wrong item, damage equipment or breach a food safety obligation. **Ideas** matter because a business staffed only for skill can **perform** its work but never **improve** it: staff see inefficiencies the owner cannot, and their suggestions drive competitive advantage and growth. The three are also **interdependent**: skills without knowledge are misapplied, and ideas without the skills to implement them remain suggestions. *Judgement:* on balance, skills are best described as **necessary but not sufficient** rather than **most important**. ∴ the view should be **only partly accepted**: skills are the most urgent staffing need a business identifies, but knowledge determines whether that work is **correctly and lawfully directed** and ideas determine whether the business **gets better over time**, so skills deliver their full value only in combination with the other two.

Q18. *(Explain a factor, then recommend how the need could be met.)* One **factor** affecting Brackendale Party Hire's staffing needs is its strongly **seasonal pattern of demand**. Because weddings and parties are concentrated between **October and March** and demand is very light over winter, the work of delivering, erecting and collecting marquees and taking bookings **varies enormously across the year**. Brackendale's staffing need is therefore not a single, constant number: employing enough permanent staff to cover the summer peak would leave it **overstaffed and paying wages for work that does not exist** through winter, while staffing for winter would leave it **badly understaffed** exactly when its revenue is earned. To **meet** this need, Brackendale should build a **small permanent core** — a coordinator and one or two experienced crew who handle bookings, maintenance and quality year-round and hold the business's knowledge of its equipment and regular clients — and **supplement it with casual staff engaged for the October–March peak**. This matches labour cost to the work actually available while keeping the continuity and experience the business needs, and the core staff can train each season's casuals quickly.

Q19. *Model response (10 marks).* A business's **staffing needs** are the **number of employees it requires, the positions and employment arrangements it needs them in, and the knowledge, skills and ideas those employees must contribute** in order to operate and achieve its objectives. Identifying them is a deliberate process. The business begins with its **objectives and plan** — output, trading hours and growth intentions — and works out **all the work that must be done**. It then **groups that work into positions and estimates the hours** each requires, allowing for peak periods and leave, which sets both the **number** of staff and the **type of employment**: **full-time** or **part-time** for continuous work, **casual** for irregular demand, or an **independent contractor** where an employee is not needed. Next it **specifies the capability each position must contribute**, including any qualification the law requires. Finally a **skills audit** of the staff it already has, including the owner, exposes the **skills gap**, which **is** the staffing need — closed by **retraining, redeploying, recruiting or outsourcing**.

The capability dimension is what the identification is really about, and it has three parts. **Knowledge** is **what staff know** — product, industry and customer understanding, and knowledge of legal requirements — contributing **sound decisions, fewer errors, credible advice and compliance**, which support efficiency, satisfaction and profit. **Skills** are **what staff can do** — technical, interpersonal, organisational and leadership abilities — contributing work done **correctly, quickly and to standard**, which delivers the output, quality and service the business depends on. **Ideas** are **what staff can suggest or improve** — new products, better processes, ways of cutting waste — contributing **innovation and continuous improvement**, new sales and competitive advantage. Identified together, these give the business the **right number of the right people at a cost it can afford**; identified badly, it is left **understaffed**, **overstaffed** or holding the **wrong capability mix**.

The view that the **ideas** staff contribute are **as valuable** as their knowledge and skills is **substantially supported, though with important qualifications**. In its favour, staff are the **best source of improvement a business has**, because they do the work daily and so see inefficiencies the owner cannot; ideas cost **nothing extra** to obtain from people the business already employs; and the outcomes they generate — better processes, lower waste, new products — feed directly into **efficiency, growth and competitive advantage**, which no amount of competent routine work will produce on its own. Acting on ideas also **lifts motivation and retention**, and in a business **establishing itself** staff suggestions have their **greatest influence of all**. **However**, the comparison has limits. Knowledge and skills are **necessary conditions**: a business whose staff cannot perform the work competently, or lack the understanding to apply it lawfully, will fail regardless of how creative they are. Ideas are also **less certain in value**, since many prove unworkable and an idea can only be realised if the business can **implement** it. ∴ the evidence supports a **qualified** conclusion: ideas are **genuinely as valuable**, in that they determine whether a business **improves rather than merely operates**, and should be identified as a real staffing need — but they are valuable **in combination with**, not instead of, the knowledge and skills that allow the work to be done at all. *(Full marks require: an accurate definition of staffing needs; analysis of the identification process, including the skills audit and skills gap; an accurate account of the distinct contributions of knowledge, skills and ideas; and a sustained, two-sided evaluation of the "ideas" view reaching a justified judgement.)*

Q20. *(Analyse — trace the causal chain and apply it to the example; a general account of redundancy will not gain full marks.)* A business's **staffing needs** are the **number** of employees it requires, the **positions and employment arrangements** it needs them in, and the **knowledge, skills and ideas** they must contribute — so when what the business plans to produce changes, those needs are **recalculated**, not simply reduced. Suspending an operation begins that chain. The work the business had planned to perform at those sites — mining, smelting and refining — **stops being work it needs done**, so the **number** of employees and hours required there falls. It does not fall to nothing, because assets held ready for a possible restart still require work; but that work is of a **different type**, so the **positions** the business needs at those sites change as well as their number. The need also changes in **location**, because the same capability may still be required at the operations the business continues to run. This is why the response is properly a question of **capability, not headcount**. The business can **audit the capability it holds** and compare it with the capability its other operations require: where the two match, an identified need elsewhere can be met by **redeploying** an existing employee, closing that **skills gap** with someone who already holds the business's **knowledge** of its systems, equipment and safety requirements rather than recruiting an outsider. Where they do not match, a **redundancy** follows, because the position itself is no longer required. ∴ a suspension of this kind shows staffing needs being **re-identified from the work the business will actually do** — how many people, in what positions, holding what capability, and where — rather than treated as a fixed headcount that only ever rises or falls.

Chapter 14 Staffing needs — 14C The effects of developments in technology on staffing needs

Theory

A business's **staffing needs** are the **number and type of staff, and the knowledge, skills and ideas those staff must be able to contribute**, that a business requires in order to operate and achieve its objectives. **Developments in technology** are advances in the tools, machines and systems a business can use to do its work — including **automation** (machines performing tasks with little human involvement), **robotics** (programmable machines that carry out physical tasks), **artificial intelligence (AI)** (software that performs tasks that once needed human judgement, such as answering customer queries or forecasting demand), **business software** (systems for accounting, stock control, rostering and point-of-sale), and **e-commerce and online systems** (selling and serving customers over the internet). As these technologies advance, they change **what a business needs its people to do** — and therefore change its staffing needs.

The central idea is that developments in technology reshape staffing needs in **two directions at once**. On one hand, technology can **reduce** the need for certain staff and certain skills, because machines and software take over tasks people used to do. On the other hand, technology **creates** a need for **new roles and new skills**, because someone must operate, manage, maintain and make use of that technology. A business establishing itself, or an existing business adopting new technology, therefore rarely ends up simply with "fewer people" — more often it ends up needing **different** people, doing **different** work, with **different** skills.

Reducing the need for certain roles. Technology is very good at performing tasks that are **routine, repetitive, manual, predictable or rule-based**, and when a machine or program takes such a task over, the business needs **fewer staff to do it**.

- **Automation and robotics** replace **manual and production tasks** — for example, robotic arms assembling or welding on a production line, or an automated packing machine — so a manufacturer needs **fewer manual process workers** for those steps.
- **Software** replaces **routine clerical and administrative tasks** — for example, accounting software that records transactions and produces reports, or a rostering system that schedules staff — so the business needs **fewer bookkeeping or administrative staff** to do the same work by hand.
- **Self-service and AI** replace some **customer-facing and service tasks** — for example, self-service checkouts, online ordering apps and AI chatbots that answer common enquiries — so a business may need **fewer cashiers or front-desk staff**.

Where technology removes the need for a role, the business's staffing need for that role falls. This can mean **not replacing staff who leave**, redeploying them, or (in some cases) **redundancy** — the role is no longer required because the work itself has been automated.

Creating a need for new roles and new skills. The same technology that removes some tasks **creates new ones**, because the technology itself must be chosen, set up, operated, maintained, secured and used to add value. This generates **new staffing needs**.

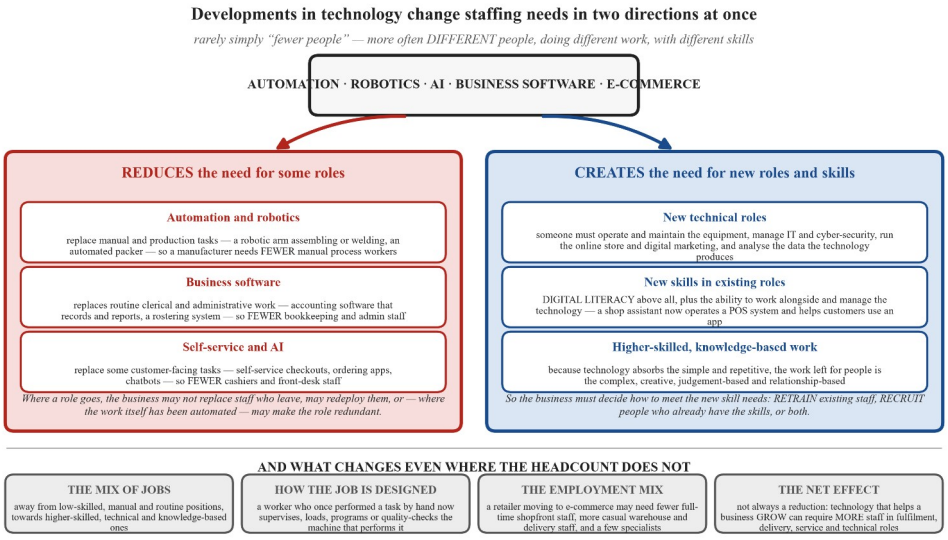
- **New technical roles.** A business may now need staff to **operate and maintain** the new equipment (a machine technician), manage its **IT systems and cyber-security**, run its **online store and digital marketing**, or **analyse the data** the technology produces to inform decisions. These roles often did not exist in the business before.
- **New skills in existing roles.** Even staff whose roles remain need **new skills** — above all **digital literacy** (the ability to use computers, apps and online systems confidently) and the ability to **work alongside and manage the technology** rather than do the task by hand. A shop assistant may now need to operate a point-of-sale system and help customers use an app; a supervisor may need to **monitor and troubleshoot** automated equipment.
- **Higher-skilled, knowledge-based work.** Because technology absorbs the simple, repetitive tasks, the work left for people tends to be the **more complex, creative, judgement-based or relationship-based** work — solving problems, managing exceptions, serving customers with unusual needs and improving the system. The

business therefore needs staff who can **contribute knowledge, skills and ideas** at a higher level, not just perform routine tasks.

Changing the types of jobs and the way work is done. Beyond simply adding and removing roles, technology **shifts the mix of jobs** a business needs. The balance moves **away from low-skilled, manual and routine positions and towards higher-skilled, technical and knowledge-based positions**. Job design changes too: a worker who once performed a task by hand may now **supervise, load, program or quality-check a machine** that performs it. The business's staffing need shifts from "people to do the task" to "people to manage the technology that does the task."

Changing the full-time, part-time and casual mix. Technology can also change **how staff are engaged**. For example, a retailer that shifts to **e-commerce** may need **fewer full-time shopfront staff** but more **flexible, casual warehouse and delivery staff** to fulfil online orders, and a small number of **specialised full-time** staff (a web manager, a data analyst). In other cases the reverse happens — automation lets a business run with a **smaller core of skilled full-time staff** and fewer casuals. Either way, the **composition** of the workforce, not just its size, responds to the technology the business adopts.

Requiring the retraining and reskilling of existing staff. Because new technology demands new skills, a business that introduces it must decide **how to meet the new skill needs**: by **retraining (reskilling or upskilling) its existing staff** so they can use and manage the technology, or by **recruiting new staff** who already have the skills — or a combination of both. Retraining changes the staffing need from *replacing* people to *developing* them, and helps a business keep experienced, loyal staff while still gaining the new capabilities the technology requires. This is why introducing technology is closely tied to a business's training needs.



The overall effect — fewer staff, or just different staff? It is tempting to assume technology always means a business needs **fewer** people, and sometimes it does reduce total headcount by automating whole categories of work. But the overall effect is **not always a reduction**:

- Technology can **increase** staffing needs where it helps a business **grow** — for example, e-commerce that opens up new markets and lifts sales may require **more** staff in fulfilment, delivery, customer service and technical roles than the business had before.
- Even where numbers fall, the business typically needs **different and more highly skilled** staff than before, so the change is one of **type and mix**, not simply size.

The net effect on any particular business depends on **what the technology replaces, what new work it creates, and whether it is being used to cut costs or to expand**. Developments in technology therefore change staffing needs in a way that is **specific to each business** — reducing some needs, creating others, and reshaping the skills and job types in between.

Key ideas to keep straight.

- Technology changes staffing needs in **two directions at once**: it **reduces** the need for some roles and skills **and creates** the need for others. A strong answer covers **both**, not just the job losses.

- The change is usually about **type and mix, not only number**. Technology shifts a business towards **higher-skilled, technical and knowledge-based** roles and changes the **full-time/part-time/casual** balance, even when the headcount does not fall much.
- **Digital literacy and the ability to manage the technology** become core staffing needs — existing staff often need **retraining**, not replacement.
- This subtopic is about **how technology changes what staff a business needs** — it is **not** about how the business then finds and hires those staff (recruitment and selection) or measures their performance. Keep the answer on **staffing *needs***.

Contemporary example — Fortescue, July 2024

Fortescue is an iron ore mining business whose operations are in the Pilbara region of Western Australia. On 2 July 2024 it announced a partnership with the equipment manufacturer Liebherr to jointly develop and validate a fully integrated **Autonomous Haulage Solution** for those Pilbara operations — a fleet management system, an onboard autonomy kit for the T 264 haul truck, and high-precision machine guidance for loading equipment — expanding a partnership between the two businesses begun in June 2022. Fortescue stated in the announcement that it was already operating more than 200 diesel autonomous haul trucks across its mine sites.

Autonomous haulage is a **development in technology** of the **automation and robotics** kind, applied to a task — driving a haul truck along a fixed route — that is **routine, repetitive and predictable**. Where a mine hauls this way, its staffing need for people to **perform** that task falls. The same technology **creates new needs**, because a fleet management system and autonomy kits must be set up, operated, monitored and maintained: the business needs staff to **control and monitor the fleet, service and troubleshoot the equipment and interpret the data it produces** — higher-skilled **technical and knowledge-based** roles requiring **digital literacy**. The staffing need shifts from **people to do the task** towards **people to manage the technology that does it** — a change in the **type and mix** of staff as much as in the number, and one an existing workforce may meet through **retraining**.

Source: Fortescue, "Fortescue and Liebherr announce partnership to jointly develop Autonomous Haulage Solution", 2 July 2024 — https://www.fortescue.com/en/articles/fortescue-and-liebherr-announce-partnership-to-jointly-develop-autonomous-haulage-solution. Accurate as at July 2026.

Worked examples

Example 1 — scaffolded

Sunhaven Books is a suburban bookshop that has always used a manual cash register and a card-index system to track stock. It is installing a **point-of-sale (POS) system** and launching an **online store**. Explain how these developments in technology could change Sunhaven Books' staffing needs.

Working	Comment
The POS system and online store automate routine tasks — recording sales, tracking stock and taking orders — that staff once did by hand.	Identify what the technology takes over.
This **reduces** Sunhaven's need for staff to perform manual stock-taking and till work, so it may need fewer hours in these routine tasks.	State the reduction effect on staffing needs.
At the same time it **creates new needs**: staff who can operate the POS system, manage the online store and pack and dispatch online orders — requiring **digital literacy** and new skills.	State the creation effect — new roles and skills.
∴ the technology changes Sunhaven's staffing needs in **two directions** — reducing routine manual roles while creating a need for digitally skilled staff to run the new systems.	State the two-sided conclusion.

Example 2 — scaffolded

Pilbara Steelworks currently relies on a team of manual welders on its production line. It is installing **robotic welding machines** that can weld faster and more consistently. Explain how this could change the business's staffing needs.

Working	Comment
The robotic welders automate a **manual, repetitive production task** that human welders used to perform.	Identify the task the technology replaces.
This **reduces** Pilbara's need for manual welders — it will need fewer staff doing hand-welding.	State the reduction in a specific role.
However, it **creates** a need for staff who can **program, operate, monitor and maintain** the robots, and to quality-check their output — higher-skilled technical roles.	State the new, higher-skilled staffing needs.
Existing welders could be **retrained** to supervise and maintain the robots rather than made redundant.	Note retraining as a way to meet the new need.
∴ the robots shift Pilbara's staffing needs from **manual welding roles to higher-skilled technical roles**, changing the type of staff it needs rather than simply cutting numbers.	Conclude on the shift in job type.

Example 3 — unscaffolded

Distinguish between developments in technology **reducing the number of staff** a business needs and **changing the skills** the business needs its staff to have.

Developments in technology **reduce the number of staff** a business needs when a machine or program **takes over a task people used to do**, so that fewer employees are required to complete the same work — for example, self-service checkouts or accounting software allowing a business to operate with **fewer cashiers or clerical staff**. This is a change in the **quantity** of staff needed. By contrast, technology **changes the skills** a business needs when the work that remains, or the new work the technology creates, requires **different capabilities** from staff — for example, **digital literacy**, the ability to **operate and maintain** the technology, or to **analyse the data** it produces — even if the number of staff stays much the same. This is a change in the **type of capability** staff must contribute. The key difference is that the first effect concerns **how many** people a business needs, while the second concerns **what those people must be able to do**. ∴ technology can reduce staffing numbers, change the skills required, or (most commonly) do **both at once**.

Example 4 — unscaffolded

A business owner states, "New technology always means we can employ fewer people." Evaluate this statement.

The statement contains some truth but is **too absolute**. It is **true** that technology often reduces the need for certain staff: by automating **routine, manual and clerical tasks** — robotic production, self-service checkouts, accounting and rostering software — a business can complete the same work with **fewer employees** in those roles, which genuinely lowers its staffing needs and can cut labour costs. **However**, the claim that this "always" happens ignores two important points. First, technology usually **creates new staffing needs** even as it removes others: someone must **operate, maintain, secure and make use of** the technology, so the business needs **new technical and digitally skilled roles** and must often **retrain existing staff**, so the change is frequently one of **type and skill, not simply fewer people**. Second, technology can actually **increase** a business's staffing needs where it drives **growth** — for example, e-commerce that opens new markets and lifts sales may require **more** staff in fulfilment, delivery, customer service and IT than before. Whether headcount falls depends on **what the technology replaces, what new work it creates, and whether it is used to cut costs or to expand**. ∴ the statement should be **rejected as a general rule**: technology sometimes reduces staff numbers, but it reliably **changes the type and skills** of staff a business needs and can even increase them, so "always fewer people" is an oversimplification.

Practice questions

Scaffolded

Q1. Define the term *digital literacy*.

Q2. List **two** ways in which developments in technology can change a business's staffing needs.

Q3. For each of the following, name the effect on staffing needs being described: (a) a business installs self-service checkouts and needs fewer cashiers; (b) a business that has adopted new software must teach its existing staff to use it; (c) a business now needs an employee who can run its online store and analyse its sales data.

Q4. Explain what is meant by *developments in technology* in the context of a business's staffing.

Q5. A café installs an automated ordering app and a semi-automatic coffee machine. (a) Identify **one** way this could reduce the café's staffing needs. (b) Explain **one** new skill the café's staff may now need.

Q6. Explain the difference between technology **reducing** a business's need for certain staff and technology **creating** a need for new skills.

Unscaffolded

Q7. Describe **one** way developments in technology can reduce a business's staffing needs. *(2 marks)*

Q8. Explain how the introduction of new technology can create a demand for **new skills** among a business's staff. *(3 marks)*

Q9. Distinguish between the effect of technology on the **number** of staff a business needs and its effect on the **type** of staff a business needs. *(4 marks)*

Q10. Explain **one** effect that adopting **e-commerce** (selling online) could have on a business's staffing needs. *(3 marks)*

Q11. Compare the **staffing needs** of a traditional shopfront business with those of a business that operates mainly online. *(4 marks)*

Q12. Analyse how developments in technology could change the **types of jobs** a business needs its staff to do. *(6 marks)*

Q13. Discuss the effect of introducing **automation** on a business's staffing needs. *(6 marks)*

Q14. Justify a business's decision to **retrain its existing staff** rather than make them redundant when it introduces new technology. *(4 marks)*

Q15. Propose and justify **one** way a business could adjust its staffing to respond to a development in technology. *(4 marks)*

Q16. *Case study.* **Northwind Distributors** is a warehouse business that employs 40 staff who pick and pack customer orders by hand and keep stock records manually. Its owner, Dev, is installing an **automated robotic picking system** and an **AI-driven inventory app**. Dev expects the robots to handle most of the picking, but the new system will need staff who can **operate and maintain** it and **interpret the inventory data** it produces. (a) Identify **one** effect the new technology will have on Northwind's staffing needs. *(1 mark)* (b) Explain how the new technology could create a demand for **new skills** at Northwind. *(3 marks)* (c) Analyse how the new technology could change **both the number and the type** of staff Northwind needs. *(4 marks)*

Q17. Evaluate the view that the more technology a business adopts, the **less it needs to rely on the knowledge, skills and ideas of its staff**. *(6 marks)*

Q18. A business introduces new technology and finds that some existing roles are no longer needed while new skills are required. Explain **one** effect this has on the business's staffing needs, and recommend **one** way the business could manage it. *(4 marks)*

Q19. *Extended response.* Businesses increasingly adopt new technology such as automation, AI and e-commerce. Analyse how developments in technology can change **both the number and the type** of staff a business needs, and evaluate the view that developments in technology **create as many staffing opportunities as they remove**. *(10 marks)*

Q20. *Contemporary example.* On 2 July 2024, **Fortescue** announced a partnership with Liebherr to jointly develop an integrated autonomous haulage solution — including a fleet management system and an onboard autonomy kit for its haul trucks — for its iron ore operations in the Pilbara. Analyse how a development in technology of this kind could change the **staffing needs** of a mining business. *(6 marks)*

Answers

Q1. The ability to use computers, apps and online systems confidently — the skill staff need in order to work with the technology a business adopts. **Q2.** Any **two** of: reducing the need for certain (routine/manual/clerical) roles; creating a need for new roles and new skills; shifting the types of jobs towards higher-skilled/technical work; requiring retraining/reskilling of existing staff; changing the full-time/part-time/casual mix. **Q3.** (a) reducing the need for certain roles; (b) requiring retraining/reskilling of existing staff; (c) creating a need for new roles and new skills. **Q4.** Advances in the tools, machines and systems a business uses — such as automation, robotics, AI, business software and e-commerce/online systems. See solutions. **Q5.** (a) e.g. the app takes orders and the machine speeds preparation, so fewer staff are needed to take orders / make coffee. (b) e.g. digital literacy to operate the ordering app and coffee machine, or to monitor online orders. See solutions. **Q6.** Reducing = fewer staff needed because a machine/program does a task people used to do (a change in *number*); creating a need for new skills = staff must gain new capabilities (e.g. digital literacy, operating the technology) to do the remaining or new work (a change in *skill/type*). See solutions. **Q7.** e.g. automation/software takes over a routine manual or clerical task, so fewer staff are needed to perform it. See solutions. **Q8.** New technology must be operated, maintained and used, so staff need new skills (digital literacy, technical/data skills), creating demand for those capabilities. See solutions. **Q9.** Number = how many staff are needed (technology can reduce headcount); type = what staff must be able to do (technology shifts the skills/roles required). Both must be addressed. See solutions. **Q10.** e.g. e-commerce reduces the need for shopfront staff but creates a need for online-store, fulfilment, delivery and IT staff — changing size and mix. See solutions. **Q11.** Similarity: both need staff to serve customers and achieve objectives. Difference: a shopfront needs floor/counter staff; an online business needs web, fulfilment, delivery and digital-marketing staff with digital skills. Both sides required. See solutions. **Q12.** Causal: technology absorbs routine tasks → jobs shift towards supervising/managing the technology and higher-skilled, knowledge-based work → the type of jobs needed changes. See solutions. **Q13.** Discuss — advantages (fewer routine roles/lower labour cost, higher-skilled work) and disadvantages (retraining/recruitment cost, redundancy, resistance, reliance on tech skills); no judgement required; don't double-dip. See solutions. **Q14.** Justify — argue why retraining is worthwhile: keeps experienced/loyal staff, gains new skills, avoids redundancy costs and low morale, cheaper than recruiting. See solutions. **Q15.** Propose one adjustment (e.g. retrain existing staff / recruit a specialist / redeploy / change the full-time-casual mix) + argue why it suits the situation. See solutions. **Q16.** (a) e.g. reduces the need for manual pickers / creates a need for technicians and data analysts. (b) The robots and AI app must be operated, maintained and interpreted, so staff need technical and data-analysis skills. (c) Number: fewer manual pickers; type: shift to technical and data roles + retraining. See solutions. **Q17.** Evaluate — technology does remove reliance on some manual/routine skills and can hold knowledge the business once carried in individuals, but the remaining and new work demands higher-level capability, and a smaller specialised team makes each contribution harder to replace; reach an evidence-based judgement (reliance shifts and concentrates rather than falls). See solutions. **Q18.** Effect: e.g. the staffing need shifts (some roles obsolete, new skills required). Recommend retraining/reskilling existing staff, redeployment, or recruiting for the new skills. See solutions. **Q19.** Model response in solutions. **Q20.** Causal: autonomous haulage automates a routine, repetitive driving task → fewer staff needed to perform it → but the system must be set up, operated, monitored and maintained and its data interpreted → new technical and knowledge-based roles requiring digital literacy → the staffing need shifts from doing the task to managing the technology that does it (type and mix, not just number), met by retraining or recruiting. See solutions.

Fully-worked solutions

Q4. In the context of staffing, **developments in technology** are **advances in the tools, machines and systems a business can use to do its work** — including **automation** (machines performing tasks with little human involvement), **robotics** (programmable machines that carry out physical tasks such as assembly or picking), **artificial intelligence** (software that performs tasks once needing human judgement, such as answering enquiries or forecasting demand), **business software** (for accounting, stock control, rostering and point-of-sale), and **e-commerce and online systems** (selling and serving customers over the internet). These developments matter for staffing because they change **what a business needs its people to do**, and therefore change the number and type of staff, and the skills, the business requires.

Q5. (a) The **ordering app takes customers' orders and payments directly**, and the semi-automatic machine **prepares drinks faster and more consistently**, so the café no longer needs staff to stand at the counter taking every order or to make each coffee by hand. It can therefore serve the same number of customers with **fewer counter staff,**

or fewer rostered hours, than before. (b) *(Explain — name the skill and show why the technology creates the need.)* The café's staff would now need **digital literacy**: the confidence to use the ordering app and the machine's electronic controls. Because orders arrive **through the app rather than face to face**, staff must be able to **read the incoming order queue on screen, work out what to prepare and in what order, and sort out problems** such as a duplicated order or one placed for the wrong time, as well as **operate, clean and troubleshoot** the coffee machine. This skill is essential because the technology only delivers the speed and consistency the café installed it for if the staff can **use it properly**.

Q6. Technology **reducing a business's need for certain staff** is a change in the **number** of staff required: when a machine or program **takes over a task people used to perform** — such as self-service checkouts replacing cashiers or accounting software replacing manual bookkeeping — the business needs **fewer employees** to do that work. Technology **creating a need for new skills** is a change in the **type of capability** staff must have: the new technology must be **operated, maintained and used**, so staff need new abilities such as **digital literacy, technical skills or data analysis**, and existing staff may need **retraining**, even if the number of staff does not fall. The difference is that the first is about **how many** people the business needs, while the second is about **what those people must be able to do**. ∴ one effect changes the **size** of the workforce and the other changes its **skills**, and technology commonly produces **both** effects together.

Q7. One way developments in technology can **reduce** a business's staffing needs is by **automating a routine, manual or clerical task** that staff used to perform. For example, when a business installs **accounting software** that records transactions and produces reports automatically, or **self-service checkouts** that let customers pay without a cashier, the same work is completed with **fewer employees**, so the business needs fewer staff in those roles.

Q8. The introduction of new technology creates a demand for **new skills** because the technology itself must be **operated, maintained, secured and used to add value**, and doing so requires capabilities the business's staff may not previously have needed. Above all, staff need **digital literacy** — the confidence to use computers, apps and online systems — as well as more specialised skills such as **operating and troubleshooting automated equipment, managing IT and cyber-security, running an online store, or analysing the data the technology produces**. Because the routine tasks are increasingly done by the technology, the work left for people is more **technical and knowledge-based**, so the business needs staff who can contribute these higher-level skills. As a result, adopting new technology generates demand for new skills — met either by **retraining existing staff** or by **recruiting staff who already have them**.

Q9. *(Distinguish — both effects must be addressed.)* Technology's effect on the **number** of staff concerns **how many employees a business needs**: by taking over routine, manual and clerical tasks — through automation, robotics or software — technology allows the business to complete the same work with **fewer staff**, reducing headcount in those roles. Technology's effect on the **type** of staff concerns **what capabilities the business needs its people to have**: as the technology absorbs simple tasks and creates new technical work, the business needs staff with **new and higher-level skills** — digital literacy, the ability to operate and maintain the technology, and to analyse its data — so the **mix of jobs shifts** from low-skilled manual roles towards higher-skilled technical and knowledge-based ones. The two effects therefore differ in that one changes the **quantity** of staff needed while the other changes the **quality and mix of skills** needed. ∴ a business adopting new technology may need **fewer** staff overall, but almost always needs **different, more highly skilled** staff than before.

Q10. One effect of adopting **e-commerce** is that it **changes both the size and the mix** of a business's staffing needs. Selling online **reduces the need for shopfront staff**, because customers browse and buy through a website rather than in a physical store, so fewer counter and floor staff are required. At the same time, e-commerce **creates new staffing needs**: the business now needs staff to **manage the online store and its digital marketing**, to **pick, pack and dispatch online orders** (often flexible or casual warehouse and delivery staff), and to handle **online customer service and IT**. The business therefore needs **fewer traditional retail staff but more digitally skilled and fulfilment staff**, changing not just how many people it employs but the **types of roles** it needs filled.

Q11. *(Compare — both a similarity and a difference are required.)* **A similarity** is that both a traditional shopfront business and a mainly online business need staff to **serve customers, handle sales and help the business achieve its objectives**, and both must ensure they have the **right number and type of staff** to meet customer demand. **A difference** lies in the **kind of staff each needs**: a **shopfront** business needs **floor and counter staff** to serve customers face to face and manage a physical store, with an emphasis on **in-person service skills**; whereas a **mainly online** business needs staff to **run and update the website, manage digital marketing, pick and pack and dispatch**

online orders, handle online customer service and maintain the IT systems, with a much greater emphasis on **digital literacy and technical skills**, and often a different **full-time/casual mix** weighted towards flexible fulfilment and delivery work. In short, both need staff to win and serve customers, but the shopfront needs **in-store service staff** while the online business needs **digitally skilled, fulfilment-focused staff**.

Q12. *(Analyse — show the causal effect, not a list of pros and cons.)* Developments in technology change the **types of jobs** a business needs through a chain of effects. First, technology such as automation, robotics, AI and software is well suited to **routine, repetitive and rule-based tasks**, so as a business adopts it, these tasks are **increasingly done by machines and programs rather than people**. Because the simple tasks are absorbed by the technology, the **work that remains for staff shifts** towards tasks the technology cannot do as well — **operating, programming, monitoring and maintaining** the technology, **solving problems and managing exceptions**, and the **complex, creative or relationship-based** work such as serving customers with unusual needs. This means the business no longer needs as many people to **perform** tasks, but needs more people to **manage the technology that performs them** and to contribute **knowledge, skills and ideas** at a higher level. Job design itself changes — a worker who once did a task by hand may now **supervise and quality-check a machine** doing it — so the mix of jobs moves from **low-skilled and manual towards higher-skilled, technical and knowledge-based** roles. ∴ technology does not simply remove jobs; it **transforms the types of jobs** a business needs, shifting demand from routine task-work towards higher-skilled roles that manage and add value to the technology.

Q13. *(Discuss — advantages and disadvantages; no judgement required; avoid double-dipping.)* Introducing **automation** has significant effects — some positive, some negative — on a business's staffing needs. On the **positive** side, automation takes over **routine, repetitive and manual tasks**, so the business needs **fewer staff for that work** and can **lower its labour costs** and improve consistency; the roles that remain tend to be **higher-skilled and more valuable**, and staff can be freed from dull, physically demanding tasks to do more rewarding work. On the **negative** side, automation creates real challenges for staffing: the business must find staff with the **new technical skills** to operate and maintain the equipment — either by **retraining existing staff or recruiting specialists**, both of which cost **time and money**; some existing roles may become **redundant**, which is costly and can **damage morale and create resistance** among remaining staff; and the business becomes more **dependent on a smaller number of skilled and technical staff**, so losing them is riskier. Automation therefore reshapes a business's staffing needs — reducing routine roles and lowering some costs, but requiring new skills, investment in retraining or recruitment, and careful management of the staff whose jobs are affected.

Q14. *(Justify — argue why, with reasoning.)* A business's decision to **retrain existing staff** rather than make them redundant when it introduces new technology can be strongly justified. First, retraining **keeps the business's experienced and loyal staff**, who already understand its products, customers and culture, and simply gives them the **new skills** (such as operating the technology) they now need — so the business gains the new capabilities **without losing valuable knowledge**. Second, it **avoids the direct costs of redundancy** (redundancy payments) and the **costs of recruiting and inducting** replacement staff, which can be higher than the cost of retraining. Third, retraining **protects staff morale and reduces resistance to the new technology**: staff who see the business investing in them rather than discarding them are more likely to **support the change and stay engaged**, whereas redundancies can frighten and demotivate the remaining workforce. Fourth, it demonstrates **corporate social responsibility** towards employees, protecting the business's reputation as an employer. While retraining takes time and money and some staff may struggle to acquire the new skills, these costs are usually **outweighed** by retaining experience, avoiding redundancy and recruitment costs, and keeping morale high. ∴ retraining existing staff is justified because it meets the new skill needs the technology creates **while preserving the experience, loyalty and morale** the business depends on.

Q15. *(Propose and justify — do more than name the adjustment; argue why it suits the situation.)* One way a business could adjust its staffing to respond to a development in technology is to **retrain and redeploy its existing staff into the new roles the technology creates** — for example, training the workers whose routine tasks are now automated to **operate, monitor and maintain the new technology and to interpret the data it produces**, and moving them into those roles. This adjustment is **well suited** to a business introducing technology because it **directly meets the new skill needs** the technology generates while **making use of staff whose old tasks have been automated**, so the business gains the capabilities it needs **without large-scale redundancies or expensive external recruitment**. It also **keeps experienced, loyal staff** who know the business, **protects morale and reduces resistance** to the change, and shows the business is acting responsibly towards its employees. ∴ retraining and redeploying existing staff is an

appropriate response because it converts a potential threat to jobs into a way of **filling the new roles the technology requires**, meeting the changed staffing needs efficiently and fairly.

Q16. (a) Any **one** of: it **reduces** the need for manual pickers/clerical stock staff; or it **creates** a need for staff who can operate and maintain the robots and analyse the inventory data. (b) *(Explain — causal, linked to the case study.)* The new technology could create a demand for **new skills** at Northwind because the **robotic picking system and AI inventory app must be operated, maintained and used** rather than simply left to run. Northwind will need staff who can **program and monitor the robots and fix them when they fault**, and staff who can **interpret the inventory data** the AI app produces to make stock decisions — skills its current pickers, who work by hand, may not have. As a result, the business needs staff with **technical and data-analysis skills and digital literacy**, so it must either **retrain some of its 40 existing staff** or **recruit new specialists** to gain those capabilities. (c) *(Analyse — the effect on both number and type.)* The new technology would change **both the number and the type** of staff Northwind needs. In terms of **number**, because the robots will "handle most of the picking," Northwind will need **far fewer manual pickers and packers** than the 40 it currently employs, since that repetitive physical work is being automated — reducing the headcount for those roles. In terms of **type**, the staff it does need will be **different and more highly skilled**: it now requires **technicians to operate and maintain the robotic system** and **analysts to interpret the inventory data**, shifting the business away from low-skilled manual roles towards **technical and knowledge-based ones**. Rather than employing many people to pick by hand, Northwind will employ a **smaller, more skilled team to manage the technology that does the picking** — and it may retrain some existing staff to fill those roles. ∴ the technology reshapes Northwind's staffing needs on both dimensions at once: **fewer** staff overall, but of a **more technical and skilled type** than before.

Q17. *(Evaluate — weigh both sides and reach an evidence-based judgement.)* The view that adopting more technology leaves a business **less reliant on the knowledge, skills and ideas of its staff** is **partly supported but ultimately mistaken**. *In favour:* technology genuinely removes some of what a business once needed from its people. Machines and programs carry out **routine, manual and clerical tasks** to a consistent standard, so the business no longer depends on individual employees holding the **hand skills** to perform them — an automated packing line does not vary according to who is rostered on. Systems can also **hold information the business once carried in people's heads**, such as stock levels, customer histories and prices, so it is **less exposed when a long-serving employee leaves**. *Against / limits:* the view mistakes a **change in what is relied on** for a **fall in reliance**. Technology does not run itself: someone must **choose it, set it up, keep it working, protect it from attack and turn what it produces into decisions** — capabilities the business often did not need at all before. The work technology leaves to people is precisely the work it cannot do — **complex, judgement-based, creative and relationship-based** — which demands a **higher** level of capability than the routine tasks it replaced. **Ideas** matter more rather than less, because how much value a business gets from a new system depends on staff noticing **how it could be used better**. Reliance also **concentrates**: a smaller, more specialised team means each employee is **harder to replace**, so losing one damages the business more than losing one of many interchangeable manual workers. *Judgement:* ∴ the view should be **rejected**: adopting technology **changes and concentrates** a business's reliance on its people rather than reducing it — it may need **fewer** staff for routine work, but it depends **more heavily on the knowledge, skills and ideas** of those it keeps.

Q18. *(Explain an effect on staffing needs, then recommend a way to manage it.)* One **effect** of introducing new technology that makes some roles obsolete while requiring new skills is that the business's **staffing needs shift rather than simply shrink**: it no longer needs staff for the **automated routine tasks**, but it now needs staff with the **new technical and digital skills** to operate and use the technology — so there is a **mismatch** between the skills its current staff have and the skills it now requires. To **manage** this, the business could **retrain (reskill) its existing staff and redeploy them** into the new roles the technology creates — for example, training the workers whose tasks were automated to operate, maintain and monitor the technology or interpret its data. This meets the new skill needs **while keeping experienced, loyal staff, avoiding redundancy costs and protecting morale**, turning a potential loss of jobs into a way of filling the business's changed staffing needs. (Alternatively, the business could recruit specialists for the new roles and redeploy affected staff elsewhere.)

Q19. *Model response (10 marks).* A business's **staffing needs** are the **number and type of staff, and the knowledge, skills and ideas they must contribute**, that it requires to operate and achieve its objectives. **Developments in technology** — automation, robotics, artificial intelligence, business software and e-commerce — change these needs, and they do so along **two dimensions at once**: the **number** of staff a business needs and the **type** of staff (and skills) it needs.

In terms of **number**, technology is well suited to **routine, repetitive, manual and clerical tasks**, so as a business adopts it, machines and programs **take those tasks over** and the business needs **fewer staff to perform them** — robotic production reduces the need for manual process workers, self-service checkouts reduce the need for cashiers, and accounting or rostering software reduces the need for clerical staff. In terms of **type**, the same technology **creates new needs**: it must be **operated, maintained, secured and used to add value**, so the business needs **new technical and digitally skilled roles** — technicians, IT and data staff, online-store managers — and even staff in surviving roles need **new skills**, above all **digital literacy** and the ability to **manage the technology** rather than do the task by hand. Because the simple tasks are absorbed by the technology, the work left for people shifts towards the **more complex, technical and knowledge-based**, so the mix of jobs moves from **low-skilled and manual towards higher-skilled and technical**. Businesses commonly meet these new needs by **retraining existing staff** as well as recruiting, and the **full-time, part-time and casual mix** often changes too — for example, an e-commerce shift may cut full-time shopfront roles but add flexible fulfilment and delivery staff. Technology therefore changes staffing needs by **reducing some roles and skills while creating others**, reshaping the workforce rather than simply shrinking it.

The view that developments in technology **create as many staffing opportunities as they remove** is **partly supported but depends on the business and the technology**. In its favour, technology clearly **does create opportunities** as well as removing roles: every automated task creates a need for someone to run and maintain the technology, new technical and digital roles appear, and where technology drives **growth** — such as e-commerce opening new markets — a business may need **more** staff overall than before, so the opportunities can genuinely match or exceed the losses. **However**, this is **not guaranteed**. The new roles created are often **fewer in number but higher in skill** than the routine roles removed, so a business may end up with a **smaller total workforce**, and the staff who lose routine jobs may **not have the skills** to fill the new technical ones without retraining — meaning the "opportunities" and the "losses" do not always fall to the **same people**. Whether technology creates as many opportunities as it removes therefore depends on **what it replaces, what new work it creates, whether it is used to cut costs or to expand, and whether staff are retrained to move into the new roles**. ∴ the evidence supports a **qualified** conclusion: developments in technology reliably **both remove and create** staffing needs, and in a growing or well-managed business the opportunities created can equal or exceed those removed — but this is not automatic, because the new roles are typically **fewer and more highly skilled**, so realising the opportunities depends on how the business manages the change, particularly through **retraining and redeployment**. *(Full marks require: an accurate account of staffing needs and developments in technology; analysis of the effect on both the number and the type of staff, covering reductions and new needs; and a sustained, two-sided evaluation of the "opportunities" view reaching a justified judgement.)*

Q20. *(Analyse — trace the causal chain and apply it to the example; listing the effects of technology in general will not gain full marks.)* An **autonomous haulage solution** is a development in technology that combines **automation and robotics** with **business software** (the fleet management system), and it changes a mining business's **staffing needs** in **two directions at once**. First, it **reduces** the need for certain staff: hauling ore along a fixed route is a **routine, repetitive and predictable** task, exactly the kind of work technology performs well, so once trucks run autonomously the business needs **fewer people to perform the driving itself** and its staffing need for that role falls. Second, and at the same time, the technology **creates new staffing needs**, because it does not run itself: the fleet management system, the onboard autonomy kits and the machine guidance on loading equipment must be **set up, operated, monitored, maintained and secured**, and the data the system produces must be **interpreted** so it can inform decisions. The business therefore needs staff who can **control and monitor the fleet, service and troubleshoot the equipment and analyse its data** — **higher-skilled technical and knowledge-based roles** demanding **digital literacy** — while staff in surviving roles need new skills to **work alongside and manage the technology** rather than do the task by hand. The **types of jobs** the business needs therefore shift away from **manual, task-performing** work towards **supervising and managing the technology that performs the task**, changing the **type and mix** of staff and not simply the number. Because those new roles demand capabilities the existing workforce may not have, the business must meet them either by **retraining and redeploying existing staff** or by **recruiting** people who already hold the skills. ∴ a development of this kind reshapes staffing needs on **both dimensions**: it reduces the need for staff performing the automated task while creating a need for **fewer but more highly skilled** technical staff to manage it.