Can you defend the next decision?

Individual diagnostic | 50 minutes | 50 marks | Calculator allowed

Name: _____ Roll no.: _____

Answer every question in the spaces provided. Show working for calculations. All situations and figures are new, fictional teaching data. No earlier case paper, company history or outside research is needed. No negative marking. Use short reasons, not essays.

Suggested timing follows the marks. The paper tests application of course concepts, not memory of named cases. Where a decision can differ, defend yours with the supplied evidence.

1. Choose ONE answer in each item [5 marks | about 5 min]

(a) A founder asks, "Would you use my app?" Which replacement gives stronger discovery evidence?

A. Do you like our colours? B. What did you do the last time this problem occurred?

C. Would your friends like it? D. Is this an innovative idea?

Answer: _____

(b) A team calls its untested app "ready to scale" because it has 10,000 downloads. What is missing?

A. A larger logo B. Another funding round

C. Evidence of core outcomes, repeat use and viable delivery D. More pitch slides

Answer: _____

(c) An investor buys a founder's existing shares and pays the founder directly. This is:

A. Primary company funding B. Revenue C. A secondary sale D. A customer deposit

Answer: _____

(d) A service company is privately incorporated, small and testing a repeatable model. Which is sound?

A. These descriptions can coexist B. Small means it cannot be a startup

C. Private company means venture-scale D. Legal form proves market fit

Answer: _____

(e) A new cohort is only two months old. Its month-6 repeat rate has not been observed. Record it as:

A. 0% B. 100% C. The oldest cohort's rate D. Not yet observable

Answer: _____

2. Choose ALL correct answers [4 marks | about 4 min]

Each item is worth 2 marks: 2 for the exact set, 1 if you select one correct option and no incorrect option, otherwise 0.

(a) A company issues a non-convertible debenture. Which are true?

A. It is debt. B. Coupon and principal dates matter. C. It always gives ownership. D. Maturity principal can be ignored if coupons are paid.

Selected letters: _____

(b) A startup has an incubator invitation and a grant application under review. Which are true?

A. The grant is guaranteed. B. Programme terms can cost time or rights. C. The application is available bank cash. D. Fit with the actual bottleneck matters.

Selected letters: _____

Find a customer, then choose a bet

3. Research and prioritisation [6 marks | about 6 min]

A team targets 20,000 hostel residents. Of these, 30% have the weekly laundry problem it can serve. Its first-year delivery capacity is 240 customers. All figures are planning estimates, not measured purchases.

(a) Calculate SAM in people. What is the largest capacity-based first-year SOM in customers? Why is that SOM not evidence of demand? [3]

Two tests compete for the next sprint. Use the RICE method taught in class. Reach is people per month; confidence is a percentage; effort is person-weeks.

Test	Reach	Impact	Confidence	Effort
A	200	2	50%	2
B	80	3	75%	1

(b) Calculate both RICE scores and select the higher-scoring test. [2]

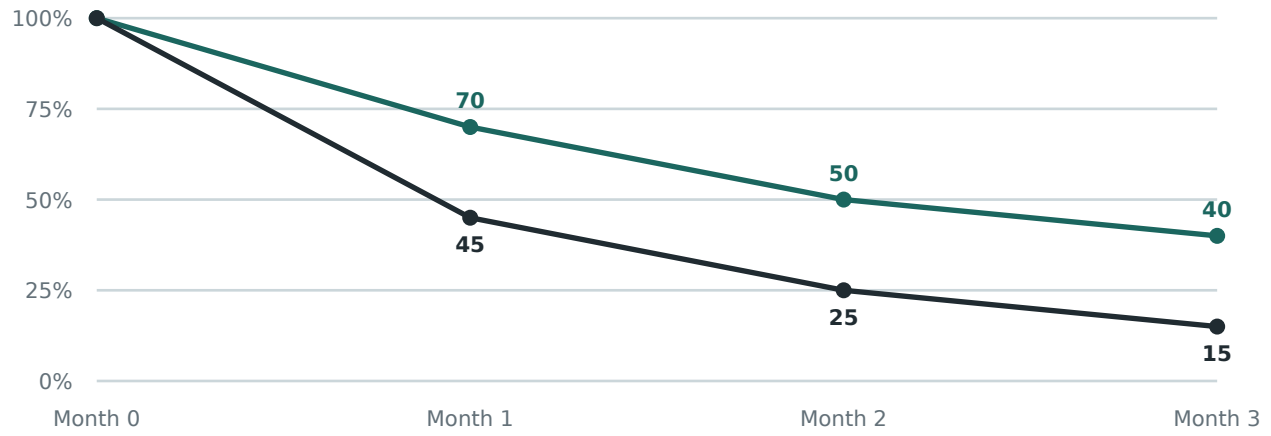
(c) Write ONE non-leading question that would reveal the target customer's recent workaround and sacrifice (money, time or effort). [1]

A score is a way to compare assumptions. It is not customer validation.

Read the behaviour behind the headline

4. Retention, acquisition and unit economics [8 marks | about 8 min]

A subscription team reports "retention improved". The chart follows two separate cohorts of 100 first-time paying customers each. Values are customers who paid in that month, as a percentage of the original 100. Both cohorts have completed four months. No customer joins these cohorts later.



Teal: earlier cohort (100, 70, 50, 40). Black: later cohort (100, 45, 25, 15).

(a) Compare month-3 retention and state whether the claim is supported. Can app reopens replace paying retention in this comparison? [2]

For the later cohort: acquisition spend was Rs 30,000 for these 100 new paying customers. Each paying customer contributes Rs 120 per paid month AFTER all variable costs. Use only months 0-3; do not assume any later purchases.

(b) Calculate CAC, observed contribution per originally acquired customer over months 0-3, and its ratio to CAC. Interpret what the result proves and does not prove. [4]

(c) A separate one-off delivery service charges Rs 90 per order but incurs Rs 105 of variable cost. Compute contribution per order. With Rs 18,000 monthly fixed costs, is there a feasible positive break-even volume at these unit economics? Explain. [2]

Profit does not pay a bill by itself

5. Profit, cash and immediate action [6 marks | about 6 min]

All amounts below are Rs lakh for one month. Tax is ignored. There are no other receipts or payments. "Fixed costs" are recognised and paid; depreciation is non-cash. Equipment is capitalised, not expensed in full this month. Loan principal is not an expense.

Profit record	Amount	Cash record	Amount
Revenue earned	8.0	Opening bank cash	1.0
Variable expense	4.0	Customer collections	6.0
Fixed operating costs	2.0	Supplier payments	3.5
Depreciation	0.3	Fixed costs paid	2.0
Interest expense	0.1	Interest paid	0.1
		Equipment paid	0.8
		Loan principal paid	0.2

(a) Calculate profit before tax and closing bank cash. [2]

(b) Explain why the two differ. Use at least TWO specific timing or accounting differences from the record. [2]

(c) Tomorrow, before any receipts, Rs 0.70 lakh supplier payment and Rs 0.20 lakh payroll must be paid. Minimum cash afterwards is Rs 0.10 lakh. Find the cash shortage. Name one credible immediate action and one condition that makes it safe. [2]

Read the funding deal, not its headline

6. Dilution across rounds and control [5 marks | about 5 min]

Two founders together own 100% before funding. At Seed, newly issued shares give an investor 20% of the post-round company. At Series A, new shares give a second investor 25% post-round. At Series B, new shares give a third investor 20% post-round. All existing holders dilute pro rata. No sales, options or other changes occur.

(a) Give the founders' combined ownership after each round. [3]

(b) The Series A investor can veto the annual budget under the signed agreement. Do founder voting percentages alone establish operational control? Explain. [1]

(c) A separate investor pays Rs 2 crore, later owns 6% at a Rs 100 crore equity exit, and has no special preferences. Compute gross proceeds and gross money multiple. [1]

7. Draw a support-capital decision [5 marks | about 5 min]

A hardware team needs a safe test lab and permission for field pilots. It has a prototype but no verified buyer outcomes. The next milestone needs Rs 12 lakh. A specialist incubator offers the required lab and pilot access; a general accelerator offers pitch coaching but neither access. A large VC requires repeatable commercial evidence. Funding awards are not guaranteed.

(a) Draw the taught Support-Capital Decision Map: label its two axes, mark this team's approximate position, and label the support route you recommend. Regions are conceptual, not numerical eligibility cutoffs. [3]

Draw here

(b) Use the team's blocker and programme trade-offs to justify your route. State one milestone that would strengthen its later capital fit. [2]

A growing startup can still hit the wall

8. Spot the decision point and the cash breach [6 marks | about 6 min]

A fictional delivery startup has growing sales. All money values are Rs lakh. Each period is ONE quarter. Net cash outflow includes every operating, equipment and debt payment, net of customer receipts, but excludes new funding. Funding arrives at the START of the stated quarter; cash outflow is even within that quarter. Q1 opening cash is Rs 20 lakh. No other funding or cash flow occurs.

Quarter / funding event	Revenue	Net cash outflow	New funding
Q1 / Seed	30	15	10
Q2 / Series A	45	30	60
Q3 / no round	65	35	0
Q4 / Series B planned, NOT received	90 forecast	60 forecast	0

(a) Calculate quarter-end cash for Q1-Q3. [3]

(b) If Q4 outflow proceeds unchanged and no new cash arrives, how many months after the START of Q4 does cash reach zero? Will the company complete Q4 without a cash shortfall? [1]

(c) Which funding round should have triggered a review of the expansion plan before the next round was assumed? Use the table to defend an early warning. Separate that management decision from the actual cash-breach point. [1]

(d) A manager says, "The next round will save us because revenue is rising." State why this is not evidence of survival. Link the failure mechanism to a startup-graveyard lesson, without needing any historical company name or date. [1]

Answer only under the printed assumptions. These tables cannot predict a real company's failure with certainty.

Design the proof before you scale

9. Draw a journey and precommit a test [5 marks | about 5 min]

A campus repair-booking team tracked 100 qualified visitors over 14 days: 60 requested a slot, 40 received a confirmed booking, 24 received the promised repair on time, and 8 of those 24 booked again when all 24 had a second relevant need. The 16 unfulfilled confirmed bookings reflect technician no-shows. The team wants to add AI recommendations and launch on three more campuses. No safety incident occurred, but reliability is unproven.

(a) Draw and label the customer journey using the supplied counts. Circle the first operational trust failure you would fix, and give its success rate using the correct denominator. [2]

Journey / funnel drawing

(b) Design one bounded test: name the change, primary metric and denominator, a numeric success / failure rule, observation window and accountable role. Keep one feature explicitly OUT of scope. [2]

(c) Choose scale, iterate, pivot or pause now. Give one evidence-based reason and one missing proof that would change your decision. [1]

END OF PAPER