INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

November 2026

CB3 Business Management

Time allowed: 1 Hour 30 Minutes

Q.1) A project has a positive expected net present value, but this result becomes negative under a small, plausible change in two correlated assumptions. Which conclusion is most appropriate?

A. The project should proceed, provided the expected NPV remains sufficiently positive to compensate for the possibility of adverse outcomes.
B. The analysis suggests that greater effort should be invested in refining the estimates of the key assumptions before a decision is made.
C. Management should quantify the probability of the adverse combined scenario occurring before determining whether the project remains worthwhile.
D. The decision is fragile; management should examine joint scenarios, downside exposure and possible staging before committing
E. The positive expected NPV remains the most relevant decision criterion, although management should note the sensitivity of the result to key assumptions.

[2 Marks]

Q.2) A customer contracts with a digital platform, which separately contracts with an insurer. The customer seeks to enforce a service promise found only in the insurer-platform agreement. Which statement is generally most accurate?

A. The customer may in some cases be able to enforce the promise if the contract was clearly intended to benefit the customer, regardless of whether the customer is a party to it.
B. The customer can normally enforce the promise provided the promise formed a material part of the customer's decision to enter the arrangement.
C. The customer cannot enforce the promise unless consideration moved directly from the customer to the insurer.
D. The customer generally cannot enforce the promise merely because the customer benefits, subject to any applicable exception or statutory right.
E. The customer may enforce the promise where the platform acted as an intermediary for the insurer, even if the contract contains no express provision granting enforcement rights.

[2 Marks]

Q.3) An actuary is asked to provide an independent opinion while the fee for the assignment increases materially if a proposed transaction is completed. Which response best protects objectivity?

A. Disclose the financial interest to all relevant parties and proceed, provided the actuary believes their professional judgement will not be affected.
B. Continue with the assignment if an independent peer review is performed before the opinion is released.
C. Identify and disclose the threat, assess whether safeguards can reduce it adequately, and decline or restructure the engagement if they cannot.
D. Ensure that the analysis is supported by sufficient evidence and clearly documented so that any resulting bias can be identified and challenged.
E. Obtain the client's informed agreement to the remuneration arrangement and proceed unless there is evidence that the incentive has influenced the conclusions.

[2 Marks]

Q.4) Which feature most directly explains why customer value in a long-term insurance contract cannot be judged solely from the point-of-sale price?

A. Customer value can be assessed largely at purchase if product features, exclusions and charges are disclosed transparently..
B. Price remains the most reliable indicator of value because customers can compare it objectively across providers.
C. Customer value depends primarily on the extent to which the product's features match the customer's stated needs when the contract is arranged.

D. Customer value is best assessed by considering the breadth of benefits available relative to the premium charged.
E. Value also depends on product suitability, clarity, continued service and performance when a claim or benefit becomes due.

[2 Marks]

Q.5) A firm has a highly efficient claims function, but competitors can replicate its processes and customers do not perceive a meaningful difference. What is the strongest strategic conclusion?

A. The capability is likely to remain a source of competitive advantage provided the firm continues to improve its efficiency faster than competitors.
B. The capability may support performance but is unlikely, by itself, to provide sustainable differentiation.
C. The capability should be retained because internal operational strengths are generally more important than customer perceptions when assessing strategy.
D. The firm should seek to leverage the capability more effectively, as customer recognition may emerge over time even if it is currently limited.
E. The capability is strategically valuable only if competitors face substantial barriers to replicating it or customers attach significant value to the difference it creates.

[2 Marks]

Q.6) Management has spent 40 million on a platform. Completing it requires another 15 million. An alternative platform would cost 12 million from today and is expected to produce the same benefits. Ignoring switching disruption, which cost comparison is decision-relevant?

A. 55 million versus 12 million
B. 40 million versus 15 million
C. 40 million versus 12 million
D. 15 million versus 12 million
E. Only the original approved budget

[2 Marks]

Q.7) A board properly approves a contract, but the director who negotiated it failed to disclose a substantial personal interest in the counterparty. Which statement is most accurate?

A. Board approval may reduce the significance of the conflict, but it does not necessarily remove all governance concerns arising from non-disclosure.
B. The company may remain bound by the contract, while the director's failure to disclose the conflict may still give rise to governance, fiduciary-duty or regulatory concerns.
C. The non-disclosure is unlikely to be material if the board independently concluded that the transaction was in the company's best interests.
D. Provided the contract was approved using the correct internal procedures, the director's personal interest becomes primarily a matter of disclosure rather than governance.
E. The principal issue is whether the contract benefits the company financially; any conflict of interest is generally secondary if value can be demonstrated.

[2 Marks]

Q.8) An actuary identifies a material limitation that cannot be resolved before a report deadline. Which approach is most appropriate?

A. State the limitation, explain its potential effect, adjust the scope or conclusion as necessary, and escalate if the report could otherwise mislead.

B. Proceed with the report provided the actuary believes the limitation is unlikely to alter the main conclusions materially, while retaining internal documentation of the issue.
C. Issue the report with appropriate caveats and continue working to resolve the limitation after publication, updating stakeholders if significant new evidence emerges.
D. Adopt a prudent assumption to address the limitation and explain the rationale, provided the resulting conclusions remain sufficiently robust for the report's intended purpose.
E. Seek agreement from the principal or intended users on how the limitation should be treated and proceed in accordance with that agreement.

[2 Marks]

Q.9) A financial-service provider reports lower unit costs after automating customer support, but customers with complex needs experience more unresolved cases and higher lapse. Which conclusion is most accurate?

A. The automation appears beneficial overall because improved efficiency may outweigh adverse outcomes affecting a relatively small customer segment.
B. The increased lapse rate suggests that the firm should reconsider the scope of automation, although cost reductions remain an important indicator of success.
C. The mixed results indicate that management should focus on determining whether the profitability gains from automation exceed the costs associated with higher customer attrition.
D. The evidence suggests that different customer segments may require different service models, but the automation initiative should continue until longer-term trends become clearer.
E. Efficiency is only one component of value; management should assess service reliability, customer outcomes and economics across segments.

[2 Marks]

Q.10) A platform partnership gives bank rapid access to customers but transfers control of customer data, interface design and renewal communication to the platform. What is the most important strategic question?

A. Whether the increase in customer acquisition and distribution scale is sufficient to justify the share of economics retained by the platform.
B. Whether the partnership can be structured to preserve adequate regulatory oversight and accountability for customer outcomes.
C. Whether near-term access compensates for long-term dependency, loss of customer insight and weakened bargaining power.
D. Whether the bank can develop alternative distribution channels over time so that reliance on the platform gradually decreases.
E. Whether customer adoption of the platform is likely to remain strong enough to justify continued investment in the partnership.

[2 Marks]

Q.11) A life insurer is considering a simplified retirement product. Central projections show acceptable profit, but profitability depends heavily on customers retaining the product for longer than current experience and on low use of expensive support channels. What should management do first?

A. Test behavioural and channel-cost scenarios, identify break-even conditions, and consider a pilot that can distinguish incremental demand from migration of existing customers.
B. Assess whether marketing, customer engagement and service design initiatives could realistically improve retention and channel usage sufficiently to achieve target profitability.
C. Conduct further market research to determine whether customer demand for a simplified product is strong enough to offset the uncertainty surrounding retention and support costs.

D. Proceed with a controlled launch, subject to monitoring retention, usage patterns and profitability indicators closely during the initial period.
E. Evaluate whether the product continues to meet the firm's strategic objectives, even if actual retention and support-cost experience proves less favourable than expected.

[2 Marks]

Q.12) An insurer authorizes a marketplace only to introduce customers. Marketplace staff nevertheless tell customers that cover is immediately binding, and the insurer has previously allowed similar statements to stand. Which issue is most critical from the insurer's perspective?

A. Whether the marketplace exceeded its actual authority and whether any resulting customer loss arose directly from the unauthorized statements.
B. Whether the insurer had adequate controls, oversight and training arrangements to ensure marketplace staff understood the limits of their role.
C. Whether a reasonable customer would have relied on the statements when deciding to proceed and whether alternative communications corrected any misunderstanding.
D. Whether the commercial benefits obtained from the distribution arrangement justified the operational and conduct risks associated with the relationship.
E. Whether the insurer's conduct created apparent authority and who bears responsibility for customer representations.

[2 Marks]

Q.13) A pricing model performs well overall but materially underpredicts claims for a small customer segment. Management argues that correcting the model would delay launch and have little effect on total profit. What should the actuary do?

A. Accept the model for implementation provided the aggregate validation results remain within the firm's established performance thresholds.
B. Investigate whether the segment is sufficiently large and commercially significant to justify further model redevelopment before launch.
C. Apply compensating adjustments to the affected segment and continue implementation while monitoring experience closely after deployment.
D. Enhance disclosures to management regarding the segment's performance and proceed if the expected overall financial impact is limited.
E. Investigate the segment result, assess fairness and financial effects, communicate the limitations, and recommend delays if the unresolved issue is material.

[2 Marks]

Q.14) A savings provider reduces call-centre costs by moving service online. Complaints fall, but so do contributions and retention among customers who previously relied on telephone support. Which interpretation is strongest?

A. The transformation appears broadly successful because reduced complaints suggest that most customers are adapting well to the new service model.
B. Complaint volume alone is insufficient; the provider should assess access, customer outcomes, retention and whether vulnerable or less confident customers disengaged.
C. The fall in contributions and retention suggests that the provider should reconsider the balance between digital and assisted channels, even if the reduction in complaints is encouraging.
D. The results indicate that customer behaviour has changed following the transformation, and management should determine whether the long-term financial benefits outweigh the observed customer impacts.
E. Provided profitability remains in line with business targets, the decline in retention among some customer groups may represent an acceptable trade-off for improved efficiency.

[2 Marks]

Q.15) An insurer introduces the same product through agents and a low-cost direct channel. Direct sales grow, but total sales are flat, agent retention deteriorates and acquisition cost falls only marginally. Which strategic conclusion is most appropriate?

A. The increase in direct sales may indicate successful channel development, but further evidence is needed before concluding whether the strategy has created additional value overall.
B. Management should evaluate whether the direct channel can eventually achieve scale benefits that are not yet visible in current acquisition-cost metrics.
C. The evidence suggests cannibalization and channel conflict; management should reassess segmentation, channel roles, economics and customer ownership.
D. The deterioration in agent retention is a concern, but overall assessment should consider profitability, customer acquisition and retention across all channels rather than focusing on intermediaries alone.
E. Management should review the end-to-end customer journey and channel design to determine whether interactions between channels are affecting customer behaviour and economics.

[2 Marks]

Q.16) Case Study 1

A general insurer is considering launching a **parametric flood insurance product** for small businesses. Claims would be paid when readings from independent river and rainfall sensors exceed specified thresholds, regardless of the customer's actual loss.

Management is considering three distribution models:

(i) the insurer's existing broker network;
(ii) an accounting software platform used by small businesses; or
(iii) a hybrid approach.

The software platform proposes to provide customers with an instant **recommended level of cover** and receive higher commission when customers purchase larger amounts of cover.

The sensor-data provider will not guarantee continuous service, reserves the right to change its methodology, and seeks to limit its liability to one month's fees. Internal catastrophe data are credible at a regional level but sparse for some local catchments.

The central business case is profitable, but results are sensitive to basis risk, customer take-up, commission levels, reinsurance costs and the frequency of correlated flood events. Brokers are concerned that the platform could reduce their role in the distribution process.

The Board wishes to gain a first-mover advantage but will only approve a full launch if the product is understandable, fair to customers, operationally resilient and capable of creating sustainable value.

i) Identify and explain three decision analyses management should perform. For each, describe the evidence or threshold that would support a full launch and the findings that would instead support a pilot, redesign or rejection. **[6]**

ii) Discuss the key legal and contractual issues arising from the relationships with the software platform and sensor-data provider. Address authority, customer communications, allocation of responsibility, methodology changes, service disruption, liability and enforceable performance obligations. **[4]**

iii) Identify three customer needs relevant to the proposed product. For each, explain how parametric insurance could create value and how basis risk, product design, pricing or claims mechanisms could prevent those needs from being met. **[6]**

iv) Discuss two significant professionalism or customer-fairness issues facing the actuary, taking account of sparse local data, management's desire for first-mover advantage and the platform's commission and recommendation model. Explain how the actuary should respond. **[4]**

v) Evaluate the broker-only, platform-only and hybrid distribution models. Make a recommendation, stating the capabilities and governance arrangements required for success, and explain why the alternatives are less suitable. **[5]**

[25 Marks]

Q.17) Case Study 2

A life insurance group is considering transferring its actuarial modelling staff and systems to a newly incorporated group services company. The objectives are to establish a specialist centre, provide transparent charging to group entities and, in the future, offer selected modelling services to external clients.

A director of the proposed company has negotiated a seven-year cloud services contract that exceeds the director's delegated authority. The cloud vendor is partly owned by a family trust of which the director is a beneficiary. The proposed contract includes minimum-volume commitments, limited exit assistance and no evidence that the Board has considered alternative suppliers or arrangements.

A consulting actuary advising on the restructuring will receive an additional fee if the services company becomes operational before year-end. During the review, the actuary identifies that:

- the projected reductions in model run times were measured using a test portfolio that is not comparable with the intended production portfolio;
- significant migration costs have been omitted from the business case; and
- the proposed timetable provides limited opportunity for parallel running of the existing and new systems.

i) Explain two legitimate business reasons for the proposed restructuring. For each, propose a balanced post-launch measure that would help determine whether the restructuring has created value. **[4]**

ii) Discuss the legal and governance issues arising from the proposed cloud contract, including the director's authority, the separate legal personality of the services company, the director's interest in the vendor and the Board's decision-making process. Distinguish between the possible external contractual position and the director's internal duties. **[6]**

iii) Explain how the consulting actuary should respond to:

- the contingent fee arrangement;
- the non-comparable performance evidence;
- the omitted migration costs; and
- pressure to support the accelerated implementation timetable. **[6]**

iv) Evaluate briefly whether establishing a separate services company is preferable to retaining the actuarial modelling function within the group as an internal centre of excellence. **[2]**

v) Explain briefly how selling modelling services externally could change the group's role and risk exposure within the financial-services value chain. **[2]**

[20 Marks]

Q.18) Case Study 3

A composite insurer offers motor, home, health and savings products through separate business units. Although revenue remains stable, customer retention and profitability are declining.

Each business unit controls its own customer data, develops separate digital journeys and rewards employees primarily for product sales and processing speed. As a result, customers may be asked repeatedly for the same information, must use different service channels for different products and receive offers based mainly on their existing holdings rather than their broader needs.

The insurer distributes its products through a well-established agency network, a small direct channel and several affinity partnerships. Comparison platforms are increasing price transparency, while claims inflation and customers' willingness to switch providers are rising. However, some customers, particularly those who are less confident using digital services, continue to rely heavily on agents.

Management proposes a three-year transformation comprising:

- a single customer account;
- bundled product propositions;
- common customer-data and workflow infrastructure;
- increased direct digital sales;
- selective consolidation of the agency network; and
- expanded partnerships with digital platforms.

The investment case assumes increased cross-sales, lower unit costs and improved retention. However, it does not separately assess incremental sales, channel cannibalisation, conduct-related costs or customer outcomes across different customer segments.

i) Using customer value and strategic perspectives, identify and explain four underlying reasons why the current business model may be destroying value or failing to create it. Distinguish the observed symptoms from their root causes. **[8]**

ii) Recommend a sequenced three-year transformation plan covering customer propositions, distribution channels, systems and performance measures. Explain the principal dependencies and decision gates, including the evidence that should determine whether individual initiatives are scaled, redesigned or discontinued. **[7]**

iii) Discuss two significant legal or governance control areas that the Board should maintain during the implementation of common data infrastructure, changes to the agency network and expanded platform partnerships. **[4]**

iv) Discuss two significant customer-fairness or professionalism issues arising from bundled propositions, data-driven customer targeting and the assumptions underlying the investment case. Explain how these issues should be addressed. **[4]**

v) Explain how changing customer behaviour, increased price transparency and claims inflation should influence the insurer's target business model. **[2]**

[25 Marks]

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