INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

November 2025

Subject CB3 – Business Management

Time allowed: 1 Hours 30 Minutes

Total Marks: 100

Q.1) Which of the following statements best defines a fiduciary relationship?

A. A relationship between competitors in a market.
B. A contractual relationship where both parties have equal obligations and both act in best interest of each other.
C. A relationship in which one party places special trust and confidence in another, who is obligated to act in good faith and in the best interest of the former.
D. A temporary relationship for business purposes only.
E. A relationship between two people with equal decision-making authority. **[2]**

Q.2) An actuary, while performing statutory valuation, discovers a material error in reported mortality rates from the data team. What is the correct professional response?

A. Proceed if the error is small, correcting results quietly later
B. Ignore and continue, as mortality fluctuation is common
C. Report the issue and seek clarification/correction
D. Rely on the data as provided and note it in working papers
E. Document the error and escalate to senior management **[2]**

Q.3) Under the Actuaries Act, 2006, which scenario most accurately results in direct disciplinary action by the IAI's Disciplinary Committee?

A. Publishing a technical paper without peer review
B. Failure to maintain working papers for minor tasks
C. Accepting a success-based fee that could compromise objectivity
D. Minor technical error in a reserving calculation without impact
E. Not documenting valuation model error properly

[2]

Q.4) What is the primary difference between a public and private company under the Companies Act?

A. Public companies can offer shares to the public and have no limit on the number of members, while private companies cannot offer shares to public and have a member limit.
B. Private companies can raise capital from the public, while public companies cannot.
C. Private companies must have at least 7 members, while public companies can have only 5.
D. Public companies must be partnerships, while private companies are corporations.
E. There is no legal distinction between the two. **[2]**

Q.5) Per Indian Law, which director's liability persists even after resignation, if offenses occurred during their tenure?

A. No directors
B. Only independent directors
C. Only the managing director
D. All directors for relevant periods
E. Directors who were part of audit committees **[2]**

Q.6) A company primarily involved in merchant banking and loan syndication falls under which broad classification of financial services, based on how it generates revenue?

A. Depository Services.
B. Risk Management Services.
C. Investment Services.
D. Fee-Based Services.
E. Fund-Based Services. **[2]**

Q.7) Under the Indian Contract Act, which event does NOT terminate an offer?

A. Offeree makes a counteroffer
B. Offeror revokes before acceptance
C. Offeree dies before acceptance
D. Offeree's silence as acceptance
E. Offeror refuses to negotiate **[2]**

Q.8) What does the "Doctrine of Privity" mean?

A. Only parties to the contract have rights/obligations
B. Contract is always private and confidential
C. Any third party impacted by the contract has rights
D. Privity obligations can be imposed on anyone
E. Outsiders cannot enforce contract rights **[2]**

Q.9) What is the difference between liquidated damages and penalties?

A. Both terms mean the same
B. Penalties intend to punish; liquidated damages pre-estimate loss
C. Penalties are enforceable; liquidated damages are not
D. Liquidated damages are arbitrary; penalties are fixed
E. Liquidated damages are pre-agreed compensation, penalties are punitive **[2]**

Q.10) Determine how the principle of 'vicarious liability' applies in the context of employer-employee relationships.

A. Vicarious liability does not apply in employer-employee relationships.
B. Employers are only liable for criminal acts of employees committed outside work.
C. Employers are liable for any act of their employee, regardless of connection to work.
D. Employers can be held liable for torts committed by employees during the course of employment.
E. Only the employee is liable for their wrongful acts under all circumstances. **[2]**

Q.11) A motor insurer notices increasing claims severity due to expensive electric vehicle (EV) repairs. Which application-based response is most appropriate?

A. Increase all premiums by a flat percentage across the book
B. Transfer all risks to reinsurers without review
C. Adjust risk factors and rating structures to reflect EV cost patterns
D. Ignore EV impact until portfolio is significantly exposed
E. Introduce EV-specific coverage endorsements **[2]**

Q.12) An Appointed Actuary finds that a new product design is highly profitable under best-estimate assumptions but exposes the company to significant lapse risk under stress. What is the most appropriate course of action?

A. Approve only if competitors offer similar products
B. Approve immediately since it is profitable
C. Recommend product launch with lapse risk monitoring and mitigation strategies
D. Reject product outright due to risk
E. Conduct additional sensitivity and scenario testing **[2]**

Q.13) A company incorporated outside India wants to set up an office in India to offer actuarial services directly to clients, staffed by actuaries qualified overseas but not members of the Indian Institute. What restriction does the Actuaries Act place on this?

A. None, provided they employ qualified actuaries.
B. The Act prohibits companies (whether incorporated in India or elsewhere) from practicing as actuaries.
C. They must form a partnership with a local Indian firm.
D. They require special permission from the Quality Review Board.
E. They can practice, but cannot use the designation "Actuary". **[2]**

Q.14) A life insurer is considering reducing bonus declarations due to low interest rates. What is the most appropriate actuarial application of fairness principles?

A. Cut all future bonuses to zero immediately
B. Guarantee bonuses to maintain market competitiveness
C. Balance shareholder interests with reasonable policyholder expectations based on asset shares
D. Maximize shareholder dividends since solvency is unaffected
E. Communicate rationale transparently to policyholders **[2]**

Q.15) An actuary is designing a pet insurance product for the Indian market. Which application-based step comes first in pricing?

A. Decide deductible and co-pay levels without analysis
B. Benchmark international products and adjust for Indian costs
C. Set premium rates equal to human health insurance
D. Estimate expected claim frequency and severity for target breeds
E. Define product scope and target market **[2]**

Q.16) Case Study 1: Designing Inclusive Insurance Products

In India, a significant portion of the population remains uninsured due to factors such as affordability, accessibility, and awareness. The government has launched a scheme to provide micro-insurance products aimed at low-income households, focusing on health and life coverage. The scheme is designed to be affordable, with premiums subsidized by the government.

a) Product Design Considerations

- **i)** Identify and explain two key actuarial considerations in designing micro-insurance products for low-income households. (2)

ii) Discuss the challenges in setting appropriate premium levels for such products. (3)

iii) Discuss how the actuary should take into consideration the needs of key stakeholders while designing the micro-insurance product? (5)

b) Risk Management Strategies

i) Propose two risk mitigation strategies that could be employed to ensure the sustainability of the micro-insurance scheme. (5)

ii) Evaluate the potential impact of adverse selection and moral hazard in the context of this scheme. (5)

c) Financial Projections

i) Discuss the implications of the claims' experience on the pricing and sustainability of the product. (5)

[25]

Q.17) Case Study 2: Regulatory and Ethical Challenges in Health Insurance

A health insurance company in India is considering introducing a new policy that offers coverage for critical illnesses. The policy is designed to be affordable, with premiums set at a competitive rate. However, there are concerns regarding the adequacy of the coverage and the potential for adverse selection.

a) Regulatory Compliance

i) Identify and explain two key regulatory requirements that the insurance company must adhere to when introducing this new policy. (2)

ii) Discuss the role of the Insurance Regulatory and Development Authority of India (IRDAI) in overseeing such products. (3)

b) Ethical Considerations

i) Evaluate the ethical implications of offering a policy with potentially inadequate coverage. (5)

ii) Discuss the responsibilities of actuaries in ensuring that products are fair and transparent. (5)

c) Pricing and Sustainability

i) Propose a pricing model for the critical illness policy, considering factors such as claims experience and administrative costs. (2)

ii) Discuss how the pricing model can contribute to the long-term sustainability of the product. (3)

[20]

Q.18) Case Study 3: Climate Change and Its Impact on Agricultural Insurance (25 marks)

India's agricultural sector is highly vulnerable to the effects of climate change, including erratic rainfall patterns and extreme weather events. The government has introduced a weather-based index insurance scheme to protect farmers against crop losses due to adverse weather conditions.

a) Actuarial Modeling Techniques

i) Explain the concept of weather index insurance and how it differs from traditional crop insurance. (5)

ii) Discuss the actuarial modeling techniques used to design and price weather index insurance products. (5)

b) Data Requirements and Challenges

i) Identify the key data inputs required for modeling weather index insurance. (5)

ii) Discuss the challenges in obtaining and utilizing accurate weather data in rural areas. (5)

c) Policyholder Engagement and Adoption

i) Propose strategies to increase awareness and adoption of weather index insurance among farmers. (2)

ii) Discuss the role of community organizations in educating policyholders about the benefits and limitations of such insurance products. (3)

[25]

****