A short study note that replaces section 16.5.3 “Score Based Approaches” from the *Loss Models* textbook. This study note updates section 16.5.3 by including material on the Akaike Information Criterion (AIC), along with updating examples to illustrate how to use the AIC.
This note is effective with the **October 2016 exam administration**.
AIC and BIC are each methods of comparing models fit via maximum likelihood.
In each case, a larger value is better.
AIC = maximum loglikelihood - number of parameters.
BIC is just another name for the Schwarz Bayesian Criterion (SBC).

Exam 3, Sol.5: Sample Variance = $(1000/999)(1.499 - 0.721^2) = 0.980$. The final answer is OK.

Exam 5, Q.2: For the second life, the date of withdrawal should have been July 1, 201**8**.
As the question appears, the answer should be **E**.

Exam 5, Q.9: $E[X \wedge \mathbf{1000}] - E[X \wedge \mathbf{250}] =$ The final answer is OK.

Exam 6, Q.16: $f(x) = 0.008$ for $\mathbf{0} \leq x \leq 100$

Exam 6, sol. 19: $\frac{\partial^2 \ln g(x)}{\partial \lambda^2} = -x/\lambda^2 - \frac{e^\lambda(e^\lambda - 1) - e^\lambda e^\lambda}{(e^\lambda - 1)^2} = -x/\lambda^2 + e^\lambda/(e^\lambda - 1)^2$.

Exam 8, sol. 15: Sample Variance = $(5000/4999)(0.0304 - 0.0196^2) = 0.0300$.
The final answer is OK.

Exam 10, sol. 3: $\pi(\beta) = \frac{4!}{2!\ 1!} (4\alpha)^{\mathbf{3}} (1 - 4\alpha)^{2-1} / \alpha = \mathbf{768}(\alpha^2 - 4\alpha^3)$, $0 < \alpha < 1/4$.
The final answer is OK.

Exam 11, sol. 10: Sample Variance = $(2000/1999)(1.3735 - 0.7645^2) = 0.7894$.
The final answer is OK.

Exam 12, sol.29: Three lines from the bottom: $\sum_{n=1}^{\infty} \{(1/1.7)(0.7/1.7)^n\} \{2.3\ \mathbf{n}\ e^{-2.3n}\}$

Exam 16, sol.8: The second integral should be from 0 to 60, $\frac{\int_{60}^{100} (1 - x/100)^{0.5445} dx}{(1 - 60/100)^{0.5445}}$.

The final answer is OK.

Exam 17, sol.8: Sample Variance =(100,000/99,999) (4400/100,000 - 0.04^2) = 0.04240.
The final answer is OK.

Exam 17, sol.17: S(**20**) =
The final answer is OK.

Exam 17, sol.30: Φ[-1.12] = 13.**1**4%.