The authors would like to thank the editor and reviewers for their fruitful and constructive comments and suggestions. We replied to each point raised by the reviewers. Also, we highlighted the major changes in the revised manuscript in blue color.

**Responses of Reviewer’s Comment**

Comments on the article entitled, “**Survival analysis of random censoring with inverse Maxwell distribution: an application to guinea pigs data**”

In this article, the authors have considered the problem estimation of parameters based on the randomly censored data from the inverse Maxwell lifetime model. They have provided interesting findings based on their consideration in the simulation study. The authors have organized their work well. Besides that, I have the following comments for the improvement of the article:

1. There are some grammatical/typos errors like: the first letter of “keywords” should be capital and many more in the article. The headings in sections and subsections are not uniform, they should be in uniform format throughout the article, like “InvMWD Sample with Randomly censoring Scheme” should be “InvMWD sample with randomly censoring scheme”.

**Answer**: We revisited the whole manuscript thoroughly and made changes where necessary.

2. The mathematical description of the random censoring required more clarity. The authors should rewrite subsection 2.1, so that readers can understand it easily.

**Answer**: We have rewritten the subsection 2.1 to make it more clear as per reviewer’s suggestion.

3. The font size of the text and Table 1 are not uniform, authors are suggested to make it a uniform font.

**Answer**: The corrections are done and reported in the revised manuscript.

4. For the M-H algorithm the authors should provide some more literature.

**Answer**: We have added some more literature on the M-H algorithm as per reviewer's suggestions.

5. The T-K approximation procedure was used to obtain Bayes estimators. As many existing studies have shown, the approximation method was finally beaten by the MCMC method. The T-K approximation process in subsection 4.4 is quite complicated and finally it is a worse method. Do we need such an approximation but worse procedure today under the great computer power? I suggest that the authors provide more convincing reasons in the revision why the T-K approximation is necessary for this study.

**Answer**: Of course the MCMC method is good. But both methods T-K approximation and MCMC have their importance, one may be complicated in derivation but easy to compute whereas the other one is easy to derive but complex to compute. So one may choose as per his/her need.

However, studies reported that the performance of the T-K approximation method is also good. For example, one may refer to Yadav et al. (2020) who obtained the Bayesian estimation of the survival characteristics of Hjorth distribution under progressive Type-II censoring using T-K and MCMC methods. In another study, Bastan et al. (2019) used T-K and MCMC methods (Importance Sampling and Metropolis-Hastings within Gibbs) for Bayesian estimation of Poisson-Exponential distribution.

In our study, the simulation results obtained under the T-K approximation (refer to Table 3 and 4) are satisfactory. Thus, T-K approximation can be used for approximation of Bayes estimates for the proposed study.

6. The future scope should be included in the conclusion section.

**Answer**: As per reviewer's suggestion, we added the future scope of study in the conclusion in the revised manuscript.

7. Authors need to check references carefully as some typo mistakes are there like “type-ii” should be either Type-II or type-II

**Answer**: We have checked all the references and updated them in the revised manuscript.

**References**

Yadav, A. S., Bakouch, H. S., & Chesneau, C. (2020). Bayesian estimation of the survival characteristics for Hjorth distribution under progressive type-II censoring. Communications in Statistics-Simulation and Computation, 51(3), 882-900.

Bastan, F., & Mirmostafaee, S. M. T. K. (2019). Approximating Bayes Estimates by Means of the Tierney Kadane, Importance Sampling and Metropolis-Hastings within Gibbs Methods in the Poisson-Exponential Distribution: A Comparative Study. *Iranian Journal of Operations Research*, *10*(2), 62-77.