

ON CONTRACTIVE MAPPINGS IN $b_v(s)$ -METRIC SPACES

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Abstract. The major motives of this paper are to study different types of contractive mappings and also to answer an open question of Garai et al. [Some remarks on $b_v(s)$ -metric spaces and fixed point results with an application]. We first set up some fixed point results associated with two types of contractive mappings in $b_v(s)$ -metric spaces and then we give an answer, in positive, to the open question. Most importantly, we characterize the completeness of a $b_v(s)$ -metric space via fixed point property of a certain type of contractive mappings. Our results extend and generalize several important results in the literature.

Key Words and Phrases: $b_v(s)$ -metric space, sequentially compact space, complete space, contractive mapping.

2020 Mathematics Subject Classification: 47H10, 54H25.

Acknowledgement. The authors would like to thank the anonymous referee for his/her valuable suggestions which help them to improve its first draft. The second named author would like to express his special thanks of gratitude to CSIR, New Delhi, India, for their financial supports under the CSIR-SRF fellowship scheme (Award Number: 09/973(0018)/2017-EMR-I).

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Received: July 29, 2020; Accepted: February 25, 2021.

