Int e rna t io nal Jo u rnal o f Ad vanc e Innovations, Thoughts & Ideas Effect of Ramadan Fasting on Cognitive Functions Using P300 Event Related Potential and the Cancellation Test Azizuddin Khan Department of Humanities and Social Sciences, Indian Institute of Technology Bombay, Powai, India E-mail: khanaziz@iitb.ac.in

AB STRACT: Muslims abstain from eating, drinking, sexual activity from sunrise to sunset during the fasting month of Ramadan. This study is aimed at investigating the effect of Ramadan fasting on plasma glucose levels and cognitive functions such as attention, memory, decision making. The study was carried out with 15 healthy adult participants. P300 recordings and plasma glucose levels were taken from all participants in fasting and subsequently non-fasting period as control group. The cancellation test was also administered to assess sustained attention in both periods. P300 was recorded using auditory oddball paradigm which consisted of 120 standard and 40 target stimuli. Latencies and

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