| Universiti | FACULTY OF INDUSTRIAL SCIENCES \& TECHNOLOGY |  |  | MARKS |
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| DISCRETE MATHEMATICS AND APPLICATIONS |  | CODE: <br> BUM 1233 | TOPIC: PRO NIQUES | OF TECH- |
| ASSESSMENT: QUIZ 4 |  | SET A | DURATION: 10 | MINUTES |
| NAME: |  | MATRIC N |  | $\begin{aligned} & \text { SECTION: } \\ & 4 \end{aligned}$ |

Instructions: Please answer any of the TWO questions ONLY using any valid proof techniques, and show your proofs clearly.

1. The sum of an odd number and two even numbers is an odd number.
2. If $a \mid b$ and $a \mid c$, then $a \mid(b+c)$.
3. If $n^{3}$ is an even number, then $n$ is also an even number.
4. An even perfect square is an even integer.

5 . If $n$ is odd, then $n \equiv 1(\bmod 2)$.
Answer:

