\(\left.$$
\begin{array}{|l|l|l|}\hline \text { Opcode } & \text { Operand } & \text { Description } \\
\hline 1 & \text { RXY } & \begin{array}{l}\text { LOAD the register R with the bit pattern found in the } \\
\text { memory cell whose address is XY. } \\
\text { Example: I4A3 would cause the contents of the } \\
\text { memory cell located at address A3 to be placed in } \\
\text { register 4. }\end{array} \\
\hline 2 & \text { RXY } & \begin{array}{l}\text { LOAD the register R with the bit pattern XY. } \\
\text { Example: 20A3 would cause the value A3 to be placed } \\
\text { in register 0. }\end{array} \\
\hline 3 & \text { ORS } & \begin{array}{l}\text { STORE the bit pattern found in register R in the } \\
\text { memory cell whose address is XY. } \\
\text { Example: 35B1 would cause the contents of register 5 }\end{array}
$$ \\

to be placed in the memory cell whose address is B1.\end{array}\right\}\)| MOVE the bit pattern found in register R to register S. |
| :--- |
| Example: 40A4 would cause the contents of register A |
| to be copied into register 4. |

$\left.\left.\begin{array}{|l|l|l|}\hline 8 & \text { RST } & \begin{array}{l}\text { AND the bit patterns in registers S and T and place the } \\ \text { result in register R. } \\ \text { Example: } 8045 \text { would cause the result of ANDing the } \\ \text { contents of registers 4 and 5 to be placed in register 0. }\end{array} \\ \hline 9 & \text { RST } & \begin{array}{l}\text { EXCLUSIVE OR the bit patterns in registers Sand T } \\ \text { and place the result in register R. } \\ \text { Example: 95F3 would cause the result of EXCLUSIVE } \\ \text { ORing the contents of registers F and 3 to be placed in } \\ \text { register 5 }\end{array} \\ \hline \text { A } & \text { R0X } & \begin{array}{l}\text { ROTATE the bit pattern in register R one bit to the right } \\ \text { X times. Each time place the bit that started at the }\end{array} \\ \text { low-order end at the high-order end. } \\ \text { Example: A403 would cause the contents of register 4 } \\ \text { to be rotated 3 bits to the right in a circular fashion. }\end{array} \right\rvert\, \begin{array}{l}\text { JUMP to the instruction located in the memory cell at } \\ \text { address XY if the bit pattern in register R is equal to the } \\ \text { bit pattern in register number 0. Otherwise, continue } \\ \text { with the normal sequence of execution. (The jump is } \\ \text { implemented by copying XY into the PC during the } \\ \text { execute phase.) } \\ \text { Example: B43C would first compare the contents of } \\ \text { register 4 with the contents of register 0. If the two } \\ \text { were equal, the pattern 3C would be placed in the } \\ \text { program counter so that the next instruction executed } \\ \text { would be the one located at that memory address. } \\ \text { Otherwise, nothing would be done and program } \\ \text { execution would continue in its normal sequence. }\end{array}\right\}$

