Claims

1. A transmission apparatus comprising:

code block segmentation circuitry configured to output one or more code block(s) with a first size based on an input of a transport block with a Cyclic Redundancy Check (CRC), and

encoding circuitry configured to generate encoded bits by applying Low Density Parity Check (LDPC) coding for each of the one or more code block(s), wherein

the transport block with the CRC is segmented into the one or more code block(s) in a case that a second size of the transport block with the CRC is larger than a third size,

the third size is given based on a generation method for a matrix for the LDPC coding,

the third size is a first value in a case that a first matrix for the LDPC coding is generated based on a first generation method, and

the third size is a second value which is different from the first value in a case that a second matrix for the LDPC coding is generated based on a second generation method.

2. The transmission apparatus according to claim 1, wherein a second CRC is added to the one or more code block(s) in a case that a number of the code block(s) is larger than 1.

3. The transmission apparatus according to claim 1, wherein the encoded bits are generated based on the matrix for the LDPC coding.

4. The transmission apparatus according to claim 1, wherein the encoded bits are generated based on an equation that the matrix for the LDPC coding multiplied by a second matrix equals to 0.

5. The transmission apparatus according to claim 1, wherein whether the first matrix for the LDPC coding is generated based on the first generation method or the second matrix for the LDPC coding is generated based on the second generation method is based on information in a Physical Downlink Control Channel (PDCCH).

6. A reception apparatus comprising:

decoding circuitry configured to decode encoded bits into one or more code block(s) with a first size, which Low Density Parity Check (LDPC) coding is applied to, and to output a transport block with a Cyclic Redundancy Check (CRC), wherein

the transport block with the CRC is segmented into the one or more code block(s) in a case that a second size of the transport block with the CRC is larger than a third size,

the third size is given based on a generation method for a matrix for the LDPC coding,

the third size is a first value in a case that a first matrix for the LDPC coding is generated based on a first generation method, and

the third size is a second value which is different from the first value in a case that a second matrix for the LDPC coding is generated based on a second generation method.

7. The reception apparatus according to claim 6, wherein a second CRC is added to the one or more code block(s) in a case that a number of the code block(s) is larger than 1.

8. The reception apparatus according to claim 6, wherein the encoded bits are generated based on the matrix for the LDPC coding.

9. The reception apparatus according to claim 6, wherein the encoded bits are generated based on an equation that the matrix for the LDPC coding multiplied by a second matrix equals to 0.

10. The reception apparatus according to claim 6, wherein whether the first matrix for the LDPC coding is generated based on the first generation method or the second matrix for the LDPC coding is generated based on the second generation method is based on information in a PDCCH.

11. A method for a transmission apparatus, the method comprising:

outputting one or more code block(s) with a first size based on an input of a transport block with a Cyclic Redundancy Check (CRC), and

generating encoded bits by applying Low Density Parity Check (LDPC) coding for each of the one or more code block(s), wherein

the transport block with the CRC is segmented into the one or more code block(s) in a case that a second size of the transport block with the CRC is larger than a third size,

the third size is given based on a generation method for a matrix for the LDPC coding, the third size is a first value in a case that a first matrix for the LDPC coding is generated based on a first generation method, and

the third size is a second value which is different from the first value in a case that a second matrix for the LDPC coding is generated based on a second generation method.

12. A method for a reception apparatus, the method comprising: decoding encoded bits into one or more code block(s) with a first size, which a Low Density Parity Check (LDPC) coding is applied to, and outputting a transport block with a Cyclic Redundancy Check (CRC), wherein

the transport block with the CRC is segmented into the one or more code block(s) in a case that a second size of the transport block with the CRC is larger than a third size,

the third size is given based on a generation method for a matrix for the LDPC coding,

the third size is a first value in a case that a first matrix for the LDPC coding is generated based on a first generation method, and

the third size is a second value which is different from the first value in a case that a second matrix for the LDPC coding is generated based on a second generation method.