ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

ANSWER KEY – 8

TOPIC – LOGIC GATES & COMBINATIONAL CIRCUITS

SUBJECT: COMPUTER APPLICATION **CLASS: XII**

F.M.: 15 **DATE: 11.05.2020**

➢ **Choose the correct option:** **(1X15=15)**

1) A De-multiplexer circuit has:

(a) one input, many outputs (b) many inputs, one output

(c) one input, one output (d) many inputs, many outputs

2) In a de-multiplexer, m control bits will handle _____ output lines:

(a) 2^m (b) m (c) 2m (d) m^2

3) For a 1X4 DE-MUX, what is the number of inputs?:

(a) 1 (b) 2 (c) 3 (d) 4

4) For a 1X8 DE-MUX, what is the number of outputs?:

(a) 2 (b) 4 (c) 6 **(d) 8**

5) The function of a DE-MUX is _____ to that of a MUX:

(a) Same **(b) Opposite** (c) Inline (d) None of these

6) The number of OR gate(s) used for circuit diagram of 1X8 DE-MUX will be:

(a) 0 (b) 1 (c) 2 (d) 3

7) The number of AND gate(s) used for circuit diagram of 1X8 DE-MUX will be:

(a) 4 (b) 6 **(c) 8** (d) 10

8) An AND-OR SOP circuit can be made using a:

(a) Multiplexer (b) De - Multiplexer (c) Encoder (d) Decoder

9) For 3 control signals, what will be the number of outputs of a De-multiplexer?:

(a) 8 (b) 5 (c) 4 (d) 1

10) For 3 control signals, what will be the number of inputs of a De-ultiplexer?:

(a) 8 (b) 5 (c) 4 **(d) 1**

11) If there are 16 outputs in a De-multiplexer, what will be the number of control signals?:
(a) 2 (b) 3 **(c) 4** (d) 5

12) In a 1X4 DE-MUX, 10 as control signal combination will Channelize the input to the following the output:
(a) D_0 (B) D_1 **(c) D2** (d) D_3

13) De-ultiplexer means:
(a) one to many (b) many to many **(c) many to one** (d) one to one

14) 3 bit control signals can be used to handle _____ number of outputs:
(a) 2 (b) 4 (c) 6 **(d) 8**

15) If the number of outputs is 10, the number of control signals required is:
(a) 2 **(b) 4** (c) 6 (d) 8

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