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DIGITAL LOGIC QUIZ 1 SET 2

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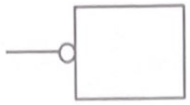
Section:	02

Answers:

1. D ✓	2. B ✗	3. C ✗	4. C ✗	5. D ✓
6. A ✗	7. B ✓	8. B ✗	9. A ✓	10. A ✓

D A

1. What is the meaning of the symbol? (1m)



A. on-state
B. pulse state
C. active high
D. active low

2. Which of the following is used to measure the rate of information transmitted in a digital signal? (1m)
A. Amplitude
B. Duty Cycle
C. Phase
D. Bandwidth

3. Which of the following is a fixed-function integrated circuit used in digital electronics? (1m)
A. FPGA
B. CPLD
C. PLD
D. AND gate

4. _____ is used to route data from one source to multiple destinations? (1m)
A. Encoder
B. Decoder
C. MUX
D. DEMUX

5. Which numbering system uses the digits 0 to 7? (1m)
   A. Binary
   B. Decimal
   C. Hexadecimal
   D. Octal

6. Assuming a 25% duty cycle and a 40 Hz frequency, find the period time (T) and the system's pulse width (tw) in seconds (s). (2m)
   A. T = 0.00625 s, tw = 0.025 s
   B. T = 0.625 s, tw = 0.025 s
   C. T = 0.0625 s, tw = 0.25 s
   D. T = 0.025 s, tw = 0.00625

7. Which of the following represents the binary number 101100.0111 in octal? (2m)
   A. 35.24
   B. 54.34
   C. 45.43
   D. 65.53

8. What is the BCD equivalent of the decimal number 12.45? (2m)
   A. 00010010.01000101
   B. 00010001.01101001
   C. 11000010.10010011
   D. 10010001.01100001

9. What is the decimal equivalent of the binary number 10111.0011? (2m)
   A. 23.1875
   B. 11.0875
   C. 16.5255
   D. 26.1255

10. Using the ASCII Table (Table 2), fill Table 1 with the correct characters and values. (2m)

Table 1

Character	ASCII Hexa	Binary (7 bit)	ODD Parity (8 bit)	New ASCII Hexa
	(i)	1000111	(ii)	(iii)

   A. (i) 47, (ii) 1 1000111, (iii) C7
   B. (i) 75, (ii) 1 1000111, (iii) D7
   C. (i) 46, (ii) 1 1001011, (iii) C5
   D. (i) 64, (ii) 1 1100111, (iii) A4