### Branch: CS / IT

### **Batch: Hinglish**

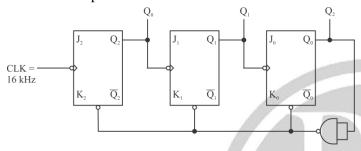
#### **Subject : Digital Logic**

**DPP - 4** 

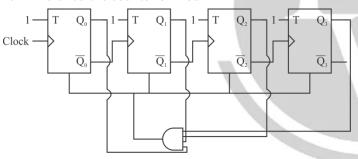
# **Chapter: Sequential Circuits**

**Topic: Counter Part III & IV** 

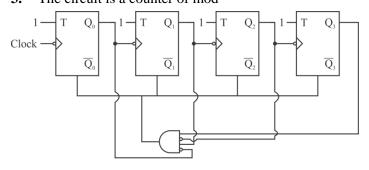
1. What is the output signal frequency of the following counter if the clock signal frequency is 16 kHz? All 'J' and 'K' inputs are connected to 1.



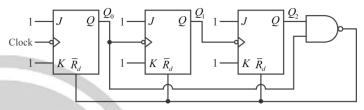
- (a) 4 kHz
- (b) 8 kHz
- (c) 10 kHz
- (d) 16 kHz
- 2. The circuit is counter of mod



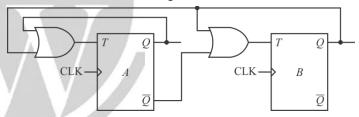
- (a) Mod-0
- (b) Mod-16
- (c) Mod-15
- (d) Mod-14
- 3. The circuit is a counter of mod



**4.** The circuit shown consists of J-K flip-flops, each with an active low asynchronous reset ( $\bar{R}_d$  input). The counter corresponding to this circuit is



- (a) a modulo-5 binary up counter.
- (b) a modulo-6 binary down counter.
- (c) a modulo-5 binary down counter.
- (d) a modulo-6 binary up counter.
- 5. The circuit shown in figure is



- (a) a MOD-2 counter
- (b) a MOD-3 counter
- (c) generate sequence 00, 10, 01, 00.....
- (d) generate sequence 00, 10, 00, 10, 00

# **Answer Key**

1. (a)

2. (c)

**3.** (10)

4. (a)

5. **(b)** 





Any issue with DPP, please report by clicking here:  $\frac{https://forms.gle/t2SzQVvQcs638c4r5}{https://smart.link/sdfez8ejd80if}$  For more questions, kindly visit the library section: Link for web:  $\frac{https://smart.link/sdfez8ejd80if}{https://smart.link/sdfez8ejd80if}$ 

