Examination: Quiz 04		**Semester: Summer 2023**
Duration: 30 Minutes		**Full Marks: 15**

CSE320: Data Communications

Name:	ID:	Section:

Answer the following questions on the question paper
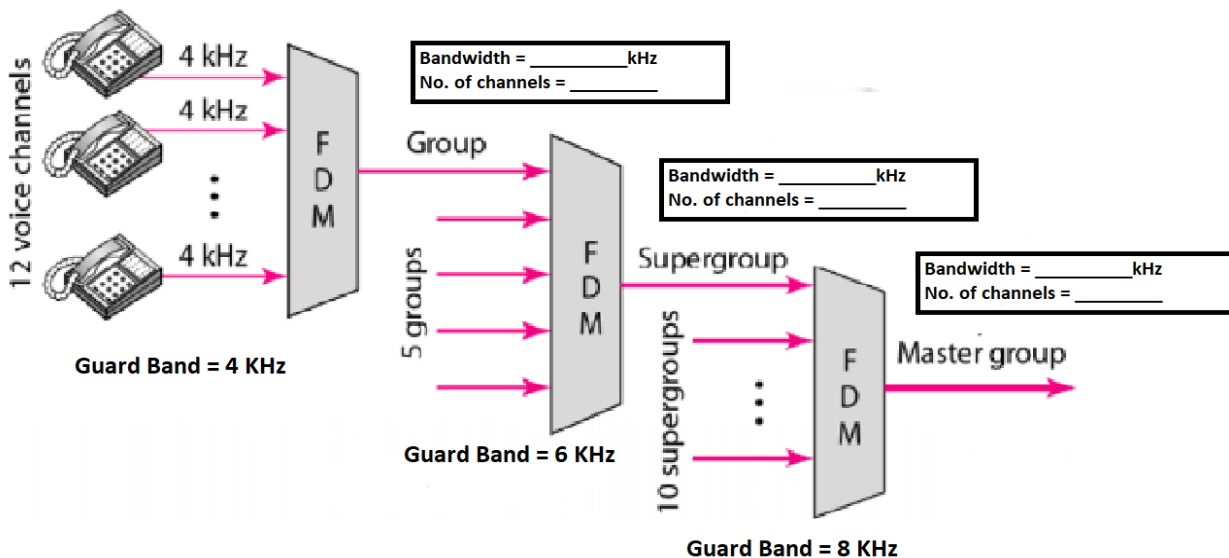
Question 01: CO3 [9]

Consider there are five channels, three with a bit rate of 130 kbps and two with a bit rate of 65 kbps, are to be multiplexed using **multi-level TDM** with one synchronization bit. The interleaved unit is 2 bits.

Write the following answers:

a. How many input channels are there after doing **multi-level** TDM?
b. What is the input slot duration before multiplexing in **seconds**?
c. What is the input bit duration before multiplexing in **seconds**?
d. What is the size of a frame in **bits**?
e. What is the frame rate in **FPS**?
f. What is the duration of a frame in **seconds**?
g. What is the output data rate in **bps**?
h. What is the output slot duration in **seconds**?
i. What is the output bit duration in **seconds**?

Question 02: CO3 [6]

[You must show the calculation]

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Answer the following questions on the question paper

Question 01: CO3 [9]
Consider there are three channels, one with a bit rate of 130 kbps and two with a bit rate of 65 kbps, are to be multiplexed using **multi-slot TDM** with one synchronization bit. The interleaved unit is 2 bits.

Write the following answers:

a. How many input channels are there after doing **multi-slot** TDM?
b. What is the input slot duration before multiplexing in **seconds**?
c. What is the input bit duration before multiplexing in **seconds**?
d. What is the size of a frame in **bits**?
e. What is the frame rate in **FPS**?
f. What is the duration of a frame in **seconds**?
g. What is the output data rate in **bps**?
h. What is the output slot duration in **seconds**?
i. What is the output bit duration in **seconds**?

Question 02: CO3 [6]

[You must show the calculation]