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**UNIVERSITI TEKNOLOGI MARA**  
**TEST 1**

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<b>COURSE</b>	<b>:</b>	<b>PARALLEL PROCESSING</b>
<b>COURSE CODE</b>	<b>:</b>	<b>CSC580</b>
<b>DATE</b>	<b>:</b>	<b>19 NOV 2021</b>
<b>TIME</b>	<b>:</b>	<b>10 AM – 11.30 AM</b>
<b>STUDENT SIGNATURE</b>	<b>:</b>	

**INSTRUCTIONS TO CANDIDATES**

1. Refer to the question file and answer ALL five (5) questions.
2. Type in answer to EACH question in the space provided in this file. Save the answers as SINGLE .pdf file. Insert **Your Name** in the filename.
3. **This is an open-book test.** Therefore, students may refer to any class materials (including slides, web notes, books, videos). However, do not copy answer(s) directly from any materials during the examination without your instructor's permission. **Any form of discussion is NOT PERMITTED during the examination.**

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QUESTIONS	MARKS
Q1	
Q2	
Q3	
Q4	
Q5	

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Save your file as .pdf file and click **Turn In/Submit** to complete your submission

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**QUESTION 1**

a) Computer hardware that's planned to work with numerous processors which gives a implies of communication between those processors. An working framework competent of overseeing numerous processors.( [1. Introduction - Oracle Parallel Processing \[Book\] \(oreilly.com\)](#))

b) Scientific Application

- The exploration of galaxies, analysis of extremely large datasets from telescopes and thermonuclear processes in astrophysics application.
- Important application such as weather modeling, mineral prospecting and flood prediction.

Commercial Applications

- Optimizing business and marketing decisions using data mining.
- Application that powered by large clusters such as information retrieval and search.

(Lecture note)

## QUESTION 2

a)

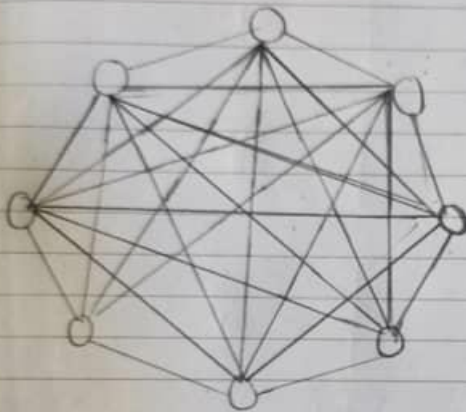
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36				

b)

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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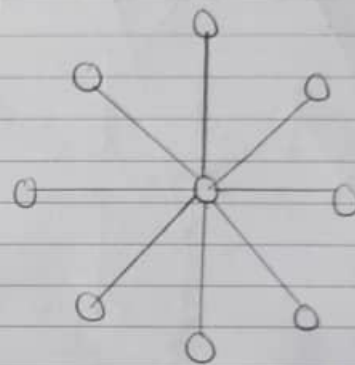
## QUESTION 3

a)



complete connected network  
of eight node

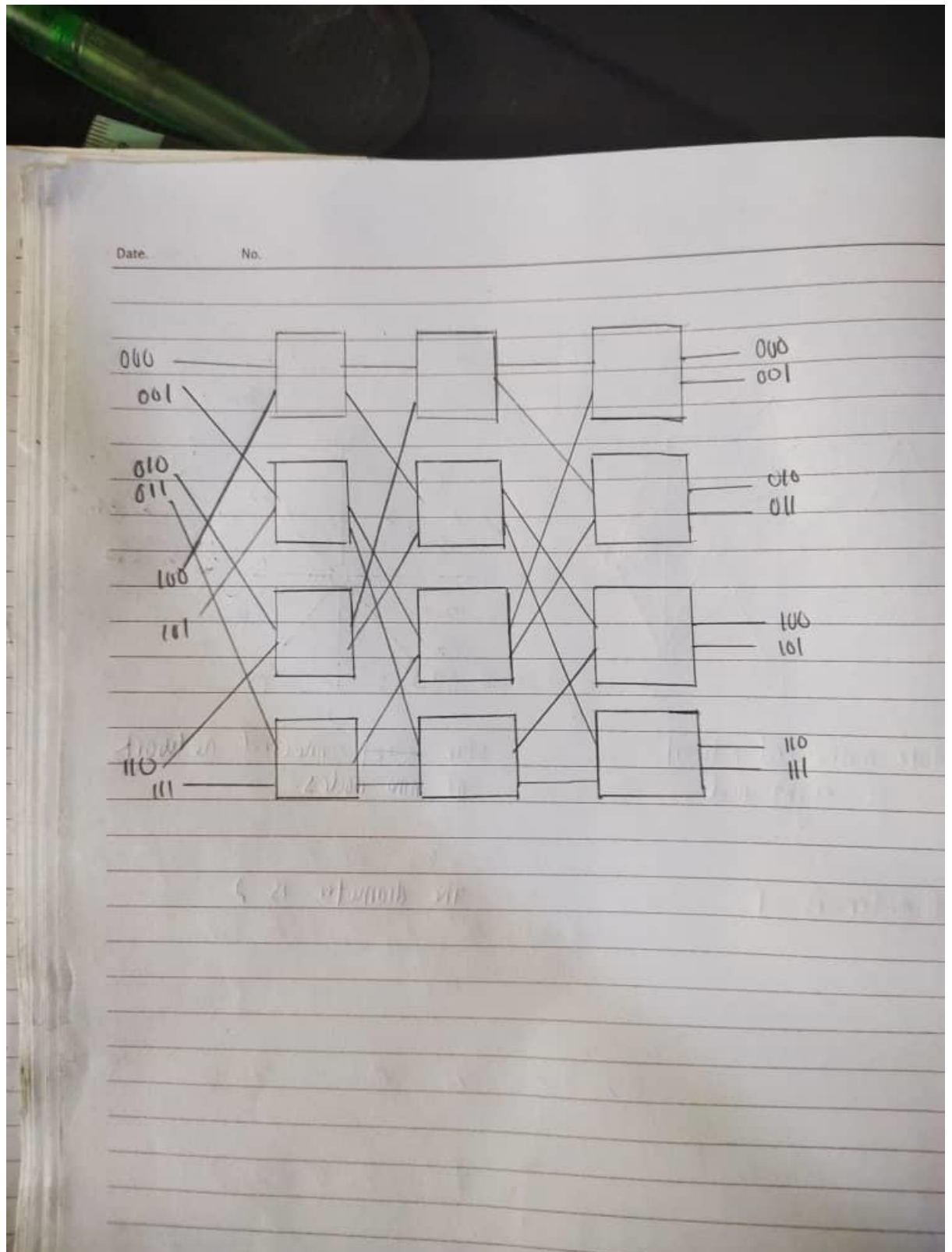
The diameter is 1



star ~~connect~~ connected network  
of nine nodes.

The diameter is 2

b)



**QUESTION 4**

**QUESTION 5**