

泰山学院机械与建筑工程学院2021级机械设计制造及其自动化（工业机器人方向春季本科）

2023 ~ 2024学年第一学期

《机械设计》期中试卷A

(答题纸共4页，答题时间120分钟)

注 意 事 项	1. 请严格按照题号在相应答题区域作答，超出答题区域的答案无效；在草稿纸、试卷上答题无效。禁止填涂答题纸四角的识别区。		
	2. 答题前请先将姓名、学号填涂清楚。		
	3. 客观题使用2B铅笔填涂；修改时用橡皮擦干净。		
	4. 保持卷面清洁，不要装订、折叠、破损。		
填 涂	正确填涂： 错误填涂：		
考 生 禁 填	缺考 ☐	作弊 ☐	违纪 ☐

学号(*必填项*)										
[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]
[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]
[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]
[5]	[5]	[5]	[5]	[5]	[5]	[5]	[5]	[5]	[5]	[5]
[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]	[6]
[7]	[7]	[7]	[7]	[7]	[7]	[7]	[7]	[7]	[7]	[7]
[8]	[8]	[8]	[8]	[8]	[8]	[8]	[8]	[8]	[8]	[8]
[9]	[9]	[9]	[9]	[9]	[9]	[9]	[9]	[9]	[9]	[9]

一、单选题（每题2分，共20分）

1. [A] [B] [C] [D]

2. [A] [B] [C] [D]

3. [A] [B] [C] [D]

4. [A] [B] [C] [D]

5. [A] [B] [C] [D]
6. [A] [B] [C] [D]

7. [A] [B] [C] [D]

8. [A] [B] [C] [D]

9. [A] [B] [C] [D]

10. [A] [B] [C] [D]

二、填空题（共20分）

1.(2分)
2.(1分)
3.(4分)
4.(2分)

5.(2分)
6.(2分)
7.(1分)
8.(2分)
9.(1分)
10.(3分)

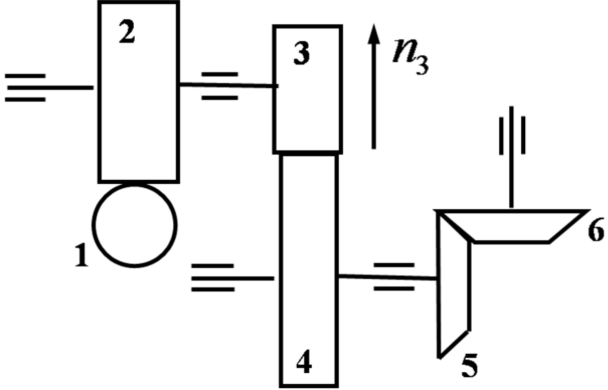
三、简答题（共20分）

1. (5分)
2. (5分)
3. (5分)

4. (5分)

四、分析题（共12分）

1. (12分)



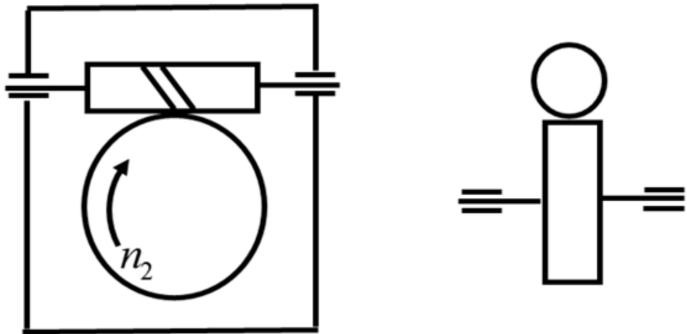
The diagram shows a mechanical system with the following components and connections:

- A fixed frame (ground) is indicated by three horizontal lines on the left.
- A gear labeled **1** is mounted on the frame.
- A rectangular link labeled **2** is connected to gear **1** at its bottom center.
- A horizontal link connects the right side of link **2** to the left side of a vertical link labeled **3**.
- A vertical link labeled **4** is connected to the bottom of link **3**.
- A horizontal link connects the right side of link **4** to a lever arm labeled **5**.
- The lever arm **5** is pivoted at its left end to the frame and has a curved end labeled **6**.
- An upward arrow next to link **3** is labeled n_3 , indicating its angular velocity.

五、计算题（共28分）

1. (8分)

2. (20分)



The diagram shows an electrical circuit with the following components and connections:

- A DC voltage source (represented by two parallel lines of unequal length) is connected in series with a switch.
- The switch is connected to a circular component, likely a motor, which has a curved arrow inside labeled n_2 indicating its rotation.
- The other terminal of the motor is connected to another DC voltage source.
- A separate branch, connected in parallel with the motor branch, contains a lamp (represented by a circle with a cross inside) in series with a switch.