



**Sketches should be neat, detailed are to be fully dimensioned.  
Any missing data are to be assumed reasonably  
Answer all the following questions**

**[Total 100 Marks]**

1. Discuss briefly the different types of the deck-stayed bridges. [20 marks]
2. Show with sketches different types of towers used in cable stayed-bridges. [20 marks]
3. Make a comparison between suspension and Cable-Stayed-Bridges [20 marks]
4. Show briefly different positions of the cable in Cable-Stayed bridges [20 marks]
5. Discuss the different loads that should be considered while the cable-stayed bridges. [20 marks]

\*\*\*\*\* Good luck \*\*\*\*\*  
Dr. Ahmed Elshafey