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**FIFTH SEMESTER**    **B.Tech. (ME)**  
**SUPPLEMENTARY EXAMINATION**                      **Feb.-2019**  
**ME-307 Manufacturing technology – II**  
**Time: 3:00 Hours**    **Maximum Marks: 40**

Note: Answer ALL questions. Attempt any TWO parts of each question.

- 1 (a) What are the properties of cutting fluid? 4  
(b) Explain different types of cutting tool materials. 4  
(c) Explain the working of Photographic method of 4  
temperature measurement with a sketch.

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- 2 (a) Explain Merchant Circle diagram and calculate 4  
different forces.  
(b) Explain Ernst – Merchant modified theory. 4  
(c) Name different types of stepless drives methods. Explain 4  
any one method.

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- 3 (a) Explain the requirement of designing the spindle. 4  
(b) What is Sine Bar? Explain the method of measuring the 4  
taper angle with sine bar.  
(c) Sketch a three view diagram of HSS tool and show 4  
various angle on it.

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- 4 (a) Explain the working of AJM with a diagram. 4  
(b) What are the advantages and disadvantages of ECM? 4  
(c) Explain EBM process and their applications. 4

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- 5 (a) What is the purpose of using jig? Explain. 4  
(b) Explain the principle of designing the fixture. 4  
(c) Explain different types of clamps used in jig and fixture. 4