

**K.D.K. COLLEGE OF ENGINEERING, NAGPUR**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**PUT EXAMINATION (2021-22)**

**SUBJECT: - AMT (Elect-III) (Theory Paper)**

**SEMESTER: - VIII<sup>th</sup>**

**TIME: - 3 HOUR**

**MAX. MARKS: - 80**

Q.1A) What do you mean by Non-Traditional machining process? How it is differ then traditional machining process. (06 M) (BTL2)

Q.1 B) (1)High speed grinding (2)Hot and cold machining (07 M) (BTL2)

**OR**

Q.2A) On which major factors, Non-Traditional machining process is classified ? Explain with details. (07 M) (BTL2)

Q.2B) What do you mean by Economics of NTMM? Explain in details with major factors (06 M) (BTL2)

Q.3A ) Write with neat sketch Water Jet Machining and also give advantages, disadvantages and applications. (06M) (BTL 3)

Q.3B ) Write about Ultra Sonic Machining with neat sketch. Also specify its advantages, disadvantages and applications. (07M) (BTL3)

**OR**

Q.4A ) Write with neat sketch Abrasive Jet Machining and also give advantages, disadvantages and applications. (06M) (BTL 3)

Q.4B ) Write Mechanics of Ultra Sonic Machining with neat sketch. Also specify process parameter and control effects on materials. (07M) (BTL3)

Q.5A ) Write with neat sketch Electrical Discharge Machining and also give advantages, disadvantages and applications. (07M) (BTL 3)

Q.5B ) Write about Plasma Arc Machining with neat sketch. Also specify its advantages, disadvantages and applications. (07M) (BTL3)

**OR**

Q.6A ) Write with neat sketch Electro chemical grinding Machining and also give advantages, disadvantages and applications. (07M) (BTL 3)

Q.6B ) Write about Electron beam Machining with neat sketch. Also specify its advantages, disadvantages and applications. (07M) (BTL3)

Q.7A ) Write about Laser Beam Welding with neat sketch. Also specify its advantages, disadvantages and applications. (07M) (BTL3)

Q.7B ) Explain construction of Oxy-Acetylene Welding with neat sketch . Also write its advantages, disadvantages & application. (06M) (BTL3)

**OR**

Q.8A ) Write about Submerge Arc Welding with neat sketch. Also specify its advantages, disadvantages and applications. (07M) (BTL3)

Q.8B ) Explain construction of Tungsten Inert Gas Welding with neat sketch . Also write its advantages, disadvantages & application. (06M) (BTL3)

Q.9A ) Write about solid phase Welding . Also specify its advantages, disadvantages and applications. (07M) (BTL3)

Q.9B ) Explain construction of Ultra sonic Welding with neat sketch . Also write its advantages, disadvantages & application. (06M) (BTL3)

**OR**

Q.10A ) Write about friction Welding with neat sketch. Also specify its advantages, disadvantages and applications. (07M) (BTL3)

Q.10B) Write about Economics and application of non- traditional welding process (06M) (BTL3)

Q.11A) Explain with neat sketch Evaporative pattern casting process with neat sketch (07M) (BTL3)

Q.11B) Explain with neat sketch Centrifugal casting process with neat sketch (07M) ( BTL3)

**OR**

Q.12A) Explain with neat sketch Ceramic shell casting process with neat sketch (07M) ( BTL3)

Q.12B) Explain with neat sketch Vacuum mould casting process with neat sketch (07M) ( BTL3)

**K.D.K. COLLEGE OF ENGINEERING, NAGPUR**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**FIRST SESSIONAL EXAMINATION (2021-22)**

**SUBJECT: - AMT (Elect-III) (Theory Paper)**

**SEMESTER: - VIII<sup>th</sup>**

**TIME: - 1 HOUR**

**MAX. MARKS: - 20**

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CO1: Introduction of non-traditional machining processes, its economics and application, high speed grinding.  
CO2: Abrasive jet machining, ultrasonic machining processes.

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- Q.1 (a) Classify Non-traditional machining process. (5M) (BTL 2)  
(b) Explain need of non-traditional machining process. (5M) (BTL 2)

**OR**

- Q.2) Write short notes on  
(a) High speed grinding  
(b) Hot and cold machining (10M) (BTL2)

- Q.3 (a) Explain Abrasive jet machining with neat sketch. (5M)(BTL3)  
(b) Explain construction and process parameters of ultrasonic machining. (5M) (BTL3)

**OR**

- Q.4) Explain construction, mechanism of Water jet machining with its all process parameters.  
Also write its advantages, disadvantages & application. (10M) (BTL3)

**K.D.K. COLLEGE OF ENGINEERING, NAGPUR**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**SECOND SESSIONAL EXAMINATION (2021-22)**

**SUBJECT: - AMT (Elect-III) (Theory Paper)**

**SEMESTER: - VIII<sup>th</sup>**

**TIME: - 1 HOUR**

**MAX. MARKS: - 20**

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CO3: Introduction of non-traditional machining processes like ECM, EDM, EBM, LBM, PAM Etc.

CO4: Introduction of non-traditional Welding processes like TIG, MIG, LBW, EBW, Atomic Hydrogen Welding, Submerge Arc Welding Etc.

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Q. 1) Write with neat sketch Electro-Chemical Machining and also give advantages, disadvantages and applications. (10M) (BTL 3)

**OR**

Q. 2) Write about Laser Beam Machining with neat sketch. Also specify its advantages, disadvantages and applications. (10M) (BTL3)

Q. 3) Write about Electron Beam Welding with neat sketch. Also specify its advantages, disadvantages and applications. (10M) (BTL3)

**OR**

Q. 4) Explain construction of Oxy-Acetylene Welding with neat sketch . Also write its advantages, disadvantages & application. (10M) (BTL3)

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**SECOND SESSIONAL EXAMINATION (2021-22)**

**SUBJECT: - AMT (Elect-III) (Theory Paper)**

**SEMESTER: - VIII<sup>th</sup>**

**TIME: - 1 HOUR**

**MAX. MARKS: - 20**

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CO3: Introduction of non-traditional machining processes like ECM, EDM, EBM, LBM, PAM Etc.

CO4: Introduction of non-traditional Welding processes like TIG, MIG, LBW, EBW, Atomic Hydrogen Welding, Submerge Arc Welding Etc.

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Q. 1) Write with neat sketch Electro-Chemical Machining and also give advantages, disadvantages and applications. (10M) (BTL 3)

**OR**

Q. 2) Write about Laser Beam Machining with neat sketch. Also specify its advantages, disadvantages and applications. (10M) (BTL3)

Q. 3) Write about Electron Beam Welding with neat sketch. Also specify its advantages, disadvantages and applications. (10M) (BTL3)

**OR**

Q. 4) Explain construction of Oxy-Acetylene Welding with neat sketch . Also write its advantages, disadvantages & application. (10M) (BTL3)