

## Unit 4 - Week 2: Sustainable Grinding Process

### Course outline

How does an NPTEL online course work?

Week 0: Prerequisite

Week 1: Introduction to Conventional Abrasive Processes

Week 2: Sustainable Grinding Process

○ Quiz : Assignment 2

● Lec. 1 : Grinding Fluids and its Emissions

● Lec. 2 : Sustainable Grinding Process: Biodegradation of Grinding Fluids

● Lec 3 : Sustainable Grinding Process: MQL in Grinding Process

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Week 3: Honing, Lapping and Super Finishing.

Week 4 : Conventional Abrasive Process and Surface Integrity in Abrasive Process

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Week 6 : Hybrid Abrasive Machining Processes

Week 7 : Advanced Abrasive Finishing Processes-1

Week 8 : Advanced Abrasive Finishing Processes-2

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## Assignment 2

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2020-02-12, 23:59 IST.**

1) Respiratory irritation and asthma are mainly caused by \_\_\_\_.

1 point

- Chlorinated paraffins  
 Endotoxins  
 Cobalt  
 None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Endotoxins

2) Which of the following cutting fluid application technique is considered as Eco-friendly?

1 point

- Flooding  
 Jet application  
 Mist application  
 All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Mist application

3) The temperature at which benzene fused to form pyrene because of incomplete combustion is

1 point

- 100 degree C - 150 degree C  
 30 degree C - 150 degree C  
 300 degree C - 600 degree C  
 1000 degree C - 1400 degree C

No, the answer is incorrect.

Score: 0

Accepted Answers:

300 degree C - 600 degree C

4) Choose CORRECT statement about functions of cutting fluids

1 point

- I.To reduce the amount of heat generation  
 II.To flush the chips formed  
 III.To provide cooling and lubrication  
 IV.To reduce the hardness of workpiece

- I only  
 I, II and III  
 I and III  
 All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

I, II and III

5) Choose the CORRECT statement about Solid lubricants

1 point

- I. Graphite can provide lubrication up to 400 degree C  
 II. Hexagonal boron nitride can provide lubrication up to 400 degree C  
 III. Graphite can provide lubrication up to 1000 degree C  
 IV. Hexagonal boron nitride can provide lubrication up to 1000 degree C

- I and III  
 II and III  
 II and IV  
 I and IV

No, the answer is incorrect.

Score: 0

Accepted Answers:

I and IV

6) \_\_\_\_\_ is the amount of dissolved oxygen required for oxidizing organic matter.

1 point

- BOD  
 COD  
 Dissolved Oxygen  
 None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

BOD

7) What is the thermal conductivity of water?

1 point

- 0.126 W/mC  
 0. 151 W/mC  
 0.62W/mC  
 1.0 W/mC

No, the answer is incorrect.

Score: 0

Accepted Answers:

0.62W/mC

8) Lipophilic cutting fluids are

1 point

- Miscible with water  
 Miscible with oils  
 Miscible with deionized water  
 Immiscible with oils

No, the answer is incorrect.

Score: 0

Accepted Answers:

Miscible with oils

9) For single point cutting tools, what type of nozzle spray is used to penetrate cutting fluid during mist application?

1 point

- Flat fan  
 Full cone  
 Hollow cone  
 Straight direction

No, the answer is incorrect.

Score: 0

Accepted Answers:

Flat fan

10) Which of the following are solid lubricants?

1 point

- I. Molybdenum disulfide (MoS<sub>2</sub>)  
 II. Graphite  
 III. Hexagonal boron nitride  
 IV. Calcium difluoride (CaF<sub>2</sub>)

- I, III and IV  
 I, II and IV  
 I and IV  
 All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

All of the above