

## FANS AND BLOWERS

Test your knowledge on fans and blowers through this quiz with ten multiple choice questions.

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Date: \_\_\_\_\_

### 1. The parameter used by ASME to define fans, blowers and compressors is

- |  |  |
|--|--|
| <input type="checkbox"/> a. Fan ratio      | <input type="checkbox"/> c. Blade ratio  |
| <input type="checkbox"/> b. Specific ratio | <input type="checkbox"/> d. Twist factor |

### 2. For fans the relation between discharge and speed is given by

- |   |   |
|---|---|
| <input type="checkbox"/> a. $Q_1/Q_2 = N_1/N_2$     | <input type="checkbox"/> c. $Q_1/Q_2 = (N_1/N_2)^2$ |
| <input type="checkbox"/> b. $Q_1/Q_2 = (N_1/N_2)^3$ | <input type="checkbox"/> d. None of the above       |

### 3. The specific ratio of blowers is

- |  |   |
|--|---|
| <input type="checkbox"/> a. Less than 1.11 | <input type="checkbox"/> c. Between 1.11 and 1.20 |
| <input type="checkbox"/> b. More than 1.20 | <input type="checkbox"/> d. None of the above     |

### 4. The choice of fan type for a given application depends on

- |   |   |
|---|---|
| <input type="checkbox"/> a. Flow            | <input type="checkbox"/> c. Both a and b      |
| <input type="checkbox"/> b. Static pressure | <input type="checkbox"/> d. None of the above |

**5. Axial fans are best suitable for \_\_\_\_\_ application**

- |  |   |
|--|---|
| <input type="checkbox"/> a. Large flow, low head | <input type="checkbox"/> c. High head, large flow |
| <input type="checkbox"/> b. Low flow, high head  | <input type="checkbox"/> d. Low flow, low head    |

**6. The efficiency of forward curved fans compared to backward curved fans is**

- |                                    |   |
|------------------------------------|---|
| <input type="checkbox"/> a. Lower  | <input type="checkbox"/> c. Same              |
| <input type="checkbox"/> b. Higher | <input type="checkbox"/> d. None of the above |

**7. Which type of control gives maximum benefits for fan application from energy saving point of view?**

- |  |  |
|--|--|
| <input type="checkbox"/> a. Discharge damper control | <input type="checkbox"/> c. Variable pitch control |
| <input type="checkbox"/> b. Inlet guide vane control | <input type="checkbox"/> d. Speed control          |

**8. The outer tube of the pitot tube is used to measure**

- |   |  |
|---|--|
| <input type="checkbox"/> a. Static pressure   | <input type="checkbox"/> c. Total pressure   |
| <input type="checkbox"/> b. Velocity pressure | <input type="checkbox"/> d. Dynamic pressure |

**9. The density of a gas at a temperature of 50 deg. C at site condition is**

- |   |   |
|---|---|
| <input type="checkbox"/> a. .94 kg/m <sup>3</sup> | <input type="checkbox"/> c. 1.4 kg/m <sup>3</sup> |
| <input type="checkbox"/> b. 1.2 kg/m <sup>3</sup> | <input type="checkbox"/> d. 1.5 kg/m <sup>3</sup> |

**10. Reducing the RPM of a fan by 10 percent brings about the following changes in power consumption**

- |   |   |
|---|---|
| <input type="checkbox"/> a. Increase by 21% | <input type="checkbox"/> c. Decrease by 25%   |
| <input type="checkbox"/> b. Increase by 33% | <input type="checkbox"/> d. None of the above |

*Test your knowledge: Fans and Blowers*

ANSWERS				
1. b	2. a	3. c	4. c	5. a
6. a	7. d	8. a	9. a	10. c