PUMPS AND PUMPING SYSTEMS

Test your knowledge on pumps and pumping systems through this quiz with ten multiple choice questions.

Name: _____

Organization: _____

Date: _____

1. Installing larger diameter pipe in pumping system results in reduction in

☐ **a.** Static head

☐ **b.** Frictional head

☐ **c.** Both a and b

☐ **d.** None of the above

2. What is the impact on flow and pressure when the impeller of a pump is trimmed?

☐ **a.** Flow decreases with increased pressure

☐ **b.** Both flow and pressure increase

☐ **c.** Both flow and pressure decrease

☐ **d.** None of the above

3. For high flow requirement, pumps are generally operated in

☐ **a.** Parallel

☐ **b.** Series

☐ **c.** Both a and b

☐ **d.** None of the above

4. Friction losses in a pumping system is

☐ **a.** Proportional to 1 / Q

☐ **b.** Proportional to $1 / Q^2$

☐ **c.** Proportional to $1 / Q^3$

☐ **d.** Proportional to $1 / Q^4$

5. The moving part of a centrifugal pump is called a

☐ **a.** Impeller
☐ **b.** Diffuser
☐ **c.** Volute
☐ **d.** Suction nozzle

6. Throttling the delivery valve of a pump results in

☐ **a.** Increased head
☐ **b.** Increased power
☐ **c.** Decreased head
☐ **d.** Both a and b

7. The operating point in a pumping system is identified by

☐ **a.** Point of intersection of system curve and efficiency curve
☐ **b.** Point of intersection of pump curve and theoretical power curve
☐ **c.** Point of intersection of pump curve and system curve
☐ **d.** Cannot be determined by the pump characteristic curves

8. If the speed of a centrifugal pump is doubled, its power consumption increases by _____ times

☐ **a.** No change
☐ **b.** Two
☐ **c.** Four
☐ **d.** Eight

9. In centrifugal pumps, a change in the diameter of the impeller can reducing the diameter to about _____ of maximum size

☐ **a.** 25%
☐ **b.** 50%
☐ **c.** 75%
☐ **d.** None of the above

10. Small by-pass lines are sometimes installed to

☐ **a.** Control the flow rate
☐ **b.** Control the pump delivery head
☐ **c.** Reduce pump power consumption
☐ **d.** Prevent the pump from running at zero flow

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