Assignment 01

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Due on 2018-08-22, 23:59 IST.

Try to answer all questions. From here onward, your performance in weekly assignment will be accounted in the evaluation of final grades.

1) If for a turbomachine, at inlet: \(u_1 = 5\ \text{m/sec}\) and \(c_1 = 2\ \text{m/sec}\) while at outlet: \(u_2 = 7\ \text{m/sec}\) and \(c_2 = 3\ \text{m/sec}\), then find whether it is a pump or a turbine.

- Turbine
- Pump
- Both pump and turbine
- Can't say anything

No, the answer is incorrect.
Score: 0
Accepted Answers: Pump

2) If the component of relative velocity in the tangential direction is 5 m/sec and the component of absolute velocity in the tangential direction is 2 m/sec, then the value of blade velocity is ________ m/sec.

- 6
- 8
- 7
- Insufficient data

No, the answer is incorrect.
Score: 0
Accepted Answers: 7
4) The Euler’s equation for turbomachine is derived on the basis of
- Rate of change of linear momentum and is valid for pump only
- Rate of change of linear momentum and is valid for both pump and turbine
- Rate of change of angular momentum and is valid for pump only
- Rate of change of angular momentum and is valid for pump and turbine

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Rate of change of angular momentum and is valid for pump and turbine

5) For a radial flow pump ratio of actual head developed by the pump to the ideal head is known as
- Mechanical efficiency
- Hydraulic efficiency
- Overall efficiency
- None

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Hydraulic efficiency

6) For a radial flow pump when the swirl at the inlet becomes negative, the head will
- Increases
- Decreases
- Remains same
- None

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Increases

7) For high discharge at low head which one of the following pump is preferred?
- Axial flow pump
- Radial flow pump
- Mixed flow pump
- None

No, the answer is incorrect.
Score: 0
Accepted Answers: None
8) Based on the direction of fluid path in the rotating element, fluid machines are classified into

- Axial flow machines and turbo machines
- Positive displacement machines and turbo machines
- Axial flow machines, radial flow machines and mixed flow machines
- None

No, the answer is incorrect.
Score: 0
Accepted Answers:
Axial flow machines, radial flow machines and mixed flow machines

9) Pump is a kind of turbo machine, which

- Absorbs power
- Produces power
- Both a and b
- None

No, the answer is incorrect.
Score: 0
Accepted Answers:
Absorbs power

10) Based on principle of operation, fluid machines are classified into positive displacement machines and turbo machines.

- True
- False

No, the answer is incorrect.
Score: 0
Accepted Answers:
True

You were allowed to submit this assignment only once.