**Name : Section: mech Power Eng. 4th year**

Select most appropriate answer

**1)   A pair of fixed blade and rotor blade in axial flow compressor is called as \_\_\_\_\_\_\_\_\_.**

a. step b. pair c. stage d. state

**2)   An axial flow compressors have \_\_\_\_\_\_\_.**

a. a drum type rotor b. a disc type rotor c. a drum type rotor or a disc type rotor d. none of the above

**3)   \_\_\_\_\_\_\_\_ blades are attached to the rotor or impeller.**

a. Fixed b. Moving c. Both fixed and moving d. None of the above

**4)   The blade passages in a compressor are \_\_\_\_\_\_\_\_**

a. converging b. diverging c. constant d. unpredictable

**5)   \_\_\_\_\_\_\_\_ can be defined as the ratio of the pressure rise in rotor blades to the pressure rise in stages in an axial flow** compressor.

a. Degree of pressure b. Degree of reaction c. Pressure ratio d. Reaction ratio

**6)   What is the ratio of the actual work absorbed by an axial flow compressor to the theoretical work called?**

a. Work input factor b. Workdone factor c. Both a. and b. d. None of the above

**7)   What is the effect of increasing number of stages in axial flow compressor on the mean work input factor (Ψw)?**

a.  (Ψw) decreases b.  (Ψw) increases c.  (Ψw) remains constant d. Unpredictable

**8)   What is the formula for blade loading coefficient (Ψ) for an axial flow compressor?**a. Ψ = W / U2 b. Ψ = U2 / W c. Ψ = W / Ca2 d. Ψ = Ca2 / W

**9)   What is the effect of increasing flow coefficient (Φ) in an axial flow compressor on blade loading coefficient (Ψ)?**

a.  (Ψ) increases b. (Ψ) decreases c. (Ψ) remains constant d. Unpredictable

**10)   The mass flow rate of air compressed in axial flow compressor is \_\_\_\_\_\_\_\_\_\_\_\_\_centrifugal compressor.**

a. lower than b. higher than c. same as d. unpredictable

**11)   Which compressors are suitable for large volume flow rates of above 1200 m3/min**

a. Centrifugal compressors b. Axial flow compressors c. Both a. and b. d. None of the above

**12)   The function of \_\_\_\_\_\_\_\_\_ is to convert high kinetic energy of gases into pressure energy.**

a. impeller b. diffuser c. casing d. None of the above

**13)    The basic principle of operation of axial flow compressor is \_\_\_\_\_\_\_that of the centrifugal compressor.**a. totally different than b.  same as

**14)   The ratio of actual whirl velocity to the ideal whirl velocity in the centrifugal compressor is called as \_\_\_\_\_\_\_\_\_.**

a. velocity factor b. slip factor c. work factor d. none of the above

**15)   What is the ratio of isentropic work to Euler work in a centrifugal compressor called?**

a. Work coefficient b. Velocity coefficient c. Pressure coefficient d. Flow coefficient

**16) In a four stage compressor, if the pressure at the first and third stage are 1 bar and 16 bar, then the delivery pressure at the fourth stage will be:** a.16 bar b. 1 bar c. 256 bar d. 64 bar

**17) The stagnation pressure rise in a centrifugal compressor takes place**

a.  in the impeller only b. in the diffuser only c. in the diffuser and impeller d. in the inlet guide vanes only

**18) In axial flow compressor, exit flow angle deviation from the blade angle is a function of**

a. blade camber b. blade camber and incidence angle c. space-chord ratio d. blade camber and space-chord ratio

**19)In a centrifugal compressor, an increase in speed at a given pressure ratio causes**

a. decrease in flow b. increase in flow c. increase in flow and decrease in efficiency d. increase in efficiency

**20) The maximum temperature in a gas turbine is**

a. 300°C b. 1800°C c. 1000°C d. 3500°C