

## **Essar Technical Questions:**

- 1) Composition of gunmetal?.**
- 2) What is the fuel used in airplanes?.**
- 3) Specific heat capacity of air?.**
- 4) Melting point of Aluminum?.**
- 5) If a ball is kept at a height of  $x(m)$ , from that position it is dropped. Does the p.e is equal to the K.e if the ball goes inside the earth as same distance where it is relieved?.**
- 6) Viscosity of the lubricant ----- with increase in temperature?.**
- 7) What amount of power required to make the 2-stroke petrol engine to 4-stroke diesel engine?.**
- 8) Which engine is the most efficient in terms of compression ratio?.**
- 9) for the same compression ratio heat removed in each cycle is efficient in otto or diesel cycle?.**
- 10) Use of draft tube in turbine ?.a) to increase work o/p of runner b) To increase turbine output.**
- 11) Percentage of carbon in toolsteel?.**
- 12) Introduction of sulphur in mild steel increases or decreases the machinability?.**

- 13) Is Bernoulli's theorem applicable for steady or unsteady flow?
- 14) Axial turbine is of which type? a) high head b) low head.
- 15) Corrosion is inhibited due to oxidation or reduction?
- 16) Binary power cycle uses ----- as working fluid?
- 17) The purpose of a runner in casting -----
- 18) The shape of a u.d.l. of a cantilever beam is?
- 19) Which has a high coefficient of friction? disc or band brakes
- 20) Engine valve seat is cooled at ----- temperature in liquid nitrogen (-180°C)
- 21) Buckling is high in a bar which is greater or smaller in length?
- 22) Formula for deflection of a beam? Ans;  $PL^3/48EI$
- 23) Which law says that pressure can be transferred from one point to another in an undiminished form?
- 24) Is a vane pump a positive or non-positive displacement pump?
- 25) As altitude increases, why does the density of air decrease?
- 26) In a reversible adiabatic process, entropy is constant or not?
- 27) In which process does the temperature of the system change but there is no heat transfer to the surroundings?

## **ESSAR PAPER AT VIJAYAWADA**

**Hints:** For Aptitude minimum preparation is sufficient, as time is less only go for selected Qs in those books. since cut-off is only 9 its easy to complete written test, but care must be taken not to spend on only one group (i.e., either reasoning or arithmetic or english).just attempt all the Qs as there is no negative marking, such that you may be easily qualified for aptitude test.

### **For technical:**

As I mentioned go through that book especially - Initial theory for each chapter before going to multiple choices in that book, practice all multiple Qs in that book as max of Qs are given from that directly. Some of the subjects you must concentrate on Production and Manufacturing, Metallurgy and Material Sciences, Thermal, Design, Hydraulics. As cutoff is 23 Take care of this section, maximum disqualified from this section itself, but if u go through that its very very easy.

### **GD Topics:**

My topic is " " RELATION BETWEEN MAFIA LEADERS AND POLITICAL LEADERS AND HOW IT EFFECT THE ECONOMICAL GROWTH OF OUR COUNTRY " ". Topics are quite different from software interviews. This is toughest topic they given on that day. Just speakout 2 or 3 times fluently its enough. they wil not give much importance to this stage.

Now the results are based on your performance in written test and your %marks(its important) not GD. mostly 75% above wil be selected.(120 members are short listed for next process)

## **The interview.**

**Hints: Dress code must be maintained for interview process, be confident while answering Qs even they are wrong, keep a pleasant smile in your face, max 15 min they will interview, also know something about company that will be added advantage.**

**1) what is the gauge pressure inside the room? ans: zero**

**2) Bernoulli's equation?**

**3) what happens if refrigerator door opens?**

**4) differentiate between annealing and normalising?**

**5) counter sinking and counter boring? just like.....**