

ISRO PAPER ON 22nd APRIL AT CHENNAI

Time: 90 min

Branch: Mechanical Engineering

Total No of Questions: 80

For correct answer: 3 marks

Wrong answer: -1 marks.

I will give only the harder questions as many as i remember.... I think there is no point in listing the dummy problems

1) Vander wal's equation (We have to pick up the right answer from four choices)

2)To a heat engine a constant heat is supplied at 300kJ at 290 C and heat is rejected at 8.5 C.

What is the heat rejected?

Ans : 150kJ

3)What is shrinkage allowance?

The dimensional allowance which must be made in molds to compensate for shrinkage of the plastic compound on cooling

4)Where spining operation is done?

Lathe

5) What is the maximum height of a siphon?

6)Time bound varying material is called?

7)There are two bodies, one with high mass another with low mass. Both are having same kinetic energy. Their momentum will be?

a) Both the momumtum will be equal b) Body of large mass will have high momentum. c)b) Body of low mass will have high momentum d)It depends uopn the velocities

8)Ratio of kinetic energies of two bodies is 1 : 4, The what is the ratio of their momentum?

9)What is the notch angle of izod impact test?

10) For a given nozzle angle and number of rows in the turbine, what is the optimum blade speed ratio?

11) A question on manometer with diagram

12) Two reservoirs are connected by a pipe of diameter D. Due to the chemical deposition the diameter is reduced by 20%. Neglect the frictional losses. How will the discharge will vary?

13) Around 10 questions on very basics of Matrices, Eigen values, Laplace.

14) A question on the position of metacenter

15) Match the following on Reynolds, weber, prandtl no

16) Problem on bulk modulus

17) What is the total volume change in a cylindrical vessel if strain e_1 acts along longitudinal and strain e_2 acts along tangential direction?

18) A question on belt friction

19) A turbine of peripheral velocity V is designed for 100m head. what will be the peripheral velocity of a turbine if the head is 800m?

No question was asked from Refrigeration and airconditioning

All the best

By,
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