Placement Papers: Crompton 12 Jun 2005 Hyderabad

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SECTION I: TECHNICAL 50 QUESTIONS 30 MINS

1. Magnetic compass indicates

   a. true north pole

   b. alionic earth pole

   c. geographic north pole

   d. magnetic north pole.

2. For a cantilever beam with uniformly varying load, shape of bending moment curve is

   a. parabolic

   b. hyperbolic

   c. straightline

   d. cubic.

3. For perfectly elastic bodies, coeffecient of restitution is

   a. 0

   b. 0.5

   c. 1

   d. infinity.

4. For 1st order lever, mechanical advantage is

   a. < 1

   b. > 1

   c. = 1

   d. none.

5. 18: 4: 1 in H. S. S represent-18tu: 4vn: 1 cr. Other choices r just interchanged.

6. Due to intense braking of an automobile reaction of wheels on road Will be equally distributed to all 4 wheels. Will be more at rear wheels Inertia will be on the front wheels. Not remember. If u apply brakes on the weels of a bicycle then

   a. normal reaction on the wheel increases

   b. normal reaction on the wheel decreases

c. normal reaction remains same as there is no radial component of frictional force

7. thermal efiiciency of I. C engines will be

    a. 20 – 25%

    b. 30 – 35%

    c. 60 – 75%

    d. 45 – 55% .

8. when a mass is supportedby spring of spring constant k, which is cut in 4 equal pieces and the connected in parallel way the equilent spring constant is

    a. k/4

    b. 16k

    c. 64k

    d. k.

9. when a mass is supported on roof of a elevator and elevator moves with an acceleration of 4.9 m/s2 shows a spring reading of 15kg, then the weight of the body is

    a. 10

    b. 15

    c. 30

    d. 20.

10. Mass production of bolts and rivets is by

11. why doesn't mercury stick to glass tube

12. How r bolts and nuts manufactured? a. Head stamping b. Cold extrusion c. Cold peening d. Forging

13. Eulers formula is used for column of length

    a. > 80

    b. < 80

    c. > 90

    d. > 110

14. If a body weighing 40kg floats in water with 40% of volume immersed, the sp. Gravity of the body is

15. Axial claw clutches

    a. Disengages

    b. engages

    c. engages only with load

    d. operates only with load

16. If center distance of a involute mating gear changes then the pressure angle

a. Increases

b. decreases

c. remains unaltered

17. Normalising is

a. heated above critical temp and cooled in air.

b. heated above critical temp and quenched in oil

c. heated below critical temp and cooled in air

18. The best suited material for permanent magnet a. Alnico b. Silicon

19. Hookes joint is used for

a. parallel and intersecting shafts

b. non parallel non intersecting

c. nonparallel and intersecting

d. parallel and non intersecting

20. To have a const. Velocity ratio the two gears should have (or) angular velocity of the gear will remain the same if the _____ cuts the line joining ... At a fixed point ans law of gearing (check for ans)

21. Which of the following is a loose running fit

a. h6f6

b. h6e6

c. h6d6

22. Farenheit and centigrade are equal at

a. -40

b. 0

c. 32

d. 100

23. M10 hexagonal bolt is manufactured

a. upset forging and thread rolling

b. casting and thread rolling

24. specific speed in a turbo machine depends on

a. geometric shape

b. size

c. head

d. all the above:

25. unit of surface roughness is

    a. micron

    b. PPM

    c. mm2, d. Meter

26. mohr's circle is used to find

    a. principle stress

    b. resultant of. ANS: c (check for ans)

27. storage, transportation, operation, delay, inspection symbols are used in

    a. process chart

    b. mam m/c chart

    c. grant chart

    d. all the above:

28. melting point of ice changes with

    a. increase with pressure

    b. increase with pressure ratio.

29. If the speed of fan is doubled, quantity of air displaced is

    a. doubled

    b. 4times

    c. $\frac{1}{2}$ times

    d. remains same.

30. which has less carbon content

    a. tool steel

    b. spring steel

    c. carburising steel

    d. forging steel.

31. when a helical compressive spring is subjected to axial compression load, the stress induced in the spring will be

    a. tensile

    b. compressive

    c. shear.

    d. none

32. for a bar element if area, length, and stress are doubled the elastic strain energy will be

    a. Half

b. doubled

c. 4 times

d. 8 times

33. for a punching die, 2mm thick sheet, dia D, force f, the shear force is ans: 8800 (check for ans)

34. spheroidising is a process of annealing b. Normalizing c. Tempering d. Case hardening

35. what type of thread is used in lead screw of a lathe

a. acme thread

b. V

c. square

d. buttress

36. Wear allowance of a go nogo end plug gauge is given for

a. go end

b. nogo end

37. Internal spur gears can be made by using

a. gear shaping

b. slotting

c. gear hobbing

38. Height of the capillary varies with increase with increase in dia of tube c. Increase with increase in sp. Weight increase with decrease in dia d. Increase with decrease in sp. Weight

39. a bolt of nomial diameter 33mm the stress of 100N/mm2 the safe load is

a. 60KN

b. 100 kn

c. 160kn.

40. a cylinder with in 1% of the tolerence capacity limit, the permissible tolerence in height and radius are-0.2% radius and 0.25 height (check for ans) .

41. in ball bearings cage is used for to maintain the

a. ball position

b. to maintain parallelism between inner and outer race

42. Pumped storage plants are used mainly for

a. high head

b. run off river.

43. For an incompressible solid, poisson's ratio is

44. distance of ozone layer from surface of earth

a. 0 to 100 km

b. 20 to 50 km

c. 50 to 100 km

d. 10 to 15 km

45. An elevator is moving up with an acc. Of 4.9 m/sec2 a body weighing 15 kg is attached with spring balance. What is the value in the spring balance

a. 10

b. 15

c. 20

d. 30

46. at same heat input and max pressure 47 bending stress is (y is the distance from the neutal axis)

47. if the body is 40% immersed in water what will be its specific gravity

48. the temp at the three edges of a square shaped body is 0 C and on the fourth edge is 100 c find the temp at the centre of the square

a. 25

b. 100

c. 50

d. 0

Interview Questions

- COMPONENTS OF A MOTOR TRANSFORMER-TYPES

- DESIGN OF MOTOR

- POKA YOKE, KANBAN

- 5 P's INMARKETING (PRICE, PLACE) ,

- WHAT IS TURBO CHARGER?

- DESIGN OF SILENCER AND it's PURPOSE

- REINFORCED CONCRETE BEAM (RCC BEAM)

- FORMULA FOR MOMENT OF INERTIA

- HOW WILL ANALYSE RCC BEAM IN ANSYS

- LAWS OF THERMODYAMICS

- CARNOT CYCLE EXPLAIN?

- WHAT IS TQM, TPM, JIT, 5S PRINCIPLE?

- DEFINE FORCE?

- CHARLES LAW, BOYLES LAW

- WHY DO YOU USE COLLANT WHILE MACHINING?

- IRON CARBON EQULIBRIUM DIAGRAM EXPLAIN?

- QUESTIONS REGARDING YOUR ELECTIVES & INPLANT TRAINING

- YOUR PERSONAL INTEREST

- DIFFERENT TYPES OF LOAD ACTING ON BEAM

- WHEATHER SHEAR FORCE ACT ON RAILWAY BRIDGE?

- WHAT SUBJECTS YOU STUDIED, QUESTIONS ON THE SUBJECTS YOU SAY

- DESIGN A FAN

- WHAT IS THE DIRECTION OF ROTATION OF CEILING FAN?

- WHY IT ALWAYS ROTATES IN ANTICLOCKWISE DIRECTION?

- IF YOU CHANGE DIRECTION OF ROTATION WHAT WILL HAPPEN?