**Bhel paper**

**120 from Technical Side (60 from Electrical Engg & 60 from General Engg)   
120 from Non Technical Side (35 from English, 35 from Aptitude & 50 from Maths)**

Technical Paper is purly Numerical Based and contains the questions like below:

**Electrical Engg paper has around**1) 15 Questions from Electrical Machines out of this 10 numericals.   
2) 8 Numericals from Control System   
3) 4 Numericals from Instrumentation   
4) 15 Questions from Electrical Power out of this 8 numericals   
5) 8 Questions from Circuit and field theory   
6) 10 Questions from Electronics (Power & Digital)

**General Engg paper has around**   
1) 35 Questions from mechanical engg   
2) 15 Questions from Physics   
3) 10 Questions from other general engg   
Non Technical paper is very easy.   
To solve this paper, speed contains an important factor. We have only 35 seconds to solve a question.   
So be fast and All the Best

**BHEL Placement Paper:**

1)Unit of Entropy (J/kg K or kJ/kg K)?

2)A mass of 100kg is falling from a height of 1 m and penetrates the sand into for 1 m. What is the resistance force given by sand?

3)Ratio of specific heats of air ? (1.41)

4)A body weighs 3 kg in air. If it is submerged in a liquid, it weighs 2.5 kg. What is the specific gravity of the liquid ?

5)Two cars travell in same direction at 40 km/hr at a regular distance. A car comes in a opposite direction in 60km/hr. It meets each car in a gap of 8 seconds. What is the distance between them?

6)A simple problem involing in hoops stress. For sphere: M= [3/2]\*p\*V\* [density of pressure vessel material/Maximum working stress it can tolerate] For Thin walled pressure walls: Hoops stress or stress in the radial direction =p\*r/2t?

7) A problem in force calculation in a body moving in a inclined surface?

8)Composition of bronze?   
ans. Copper+zinc.

9) Compostion of stainless steel.?   
ans. iron+chromium+nickel+carbon.

10) CI is manifactured in which process?   
ans. cupola process

11)What percentage of carbon is preset in pig iron?   
ans. 4.5 to 6%.

12)Water is available at 10m height. What is the pressure available?   
ans= pressure=density\*g\*height;   
p=1000\*9.81\*10;   
p=98100N/m2.

13)What will happen if the speed of the centrifugal pump doubles?

14)The unit eV is widely used in ?   
ans. Nuclear and atomic physics.

15)What will happen to the resistance, when the diameter of the conductor is doubled?

16)The power comsumed by a electrical device is 1000W at 250V, What is the resistance in the device?   
ans. Power= Voltage\*current,   
Current=Power/Voltage,   
Current,I=1000/250=4   
amps. V=IR,   
Therefore R=250/4=62.5 ohms.

17)Why DC current is not used in transformer?

18)On what principle the sonar/ radar works?

19)Bending moment diagram for the UDL is in what shape?

20)Function of the distributor in petrol vehicles?   
ans. Spark timing.

21)Which is not present in CI engines?   
ans. carburrettor.

22)What will happen if one cylinder recieves more amount of fuel spray from injectors than other injectors?

23)Purpose of draft tube in hydraulic turbines?

ans. The purpose of a draft tube is toconvert some of the kinetic energy of the flow from the runner (the rotating part of the turbine) intopressure energy and thereby increase the efficiency ofthe hydro power turbine.

24)What is the effect or reheater in the gas turbine?

The advantage of reheater is significantly increased thrust; the   
disadvantage is it has very high fuel consumption and inefficiency.

25)Problems involving with fricition coefficient.

26)Factor of safety = Yeild stress/Working stress.

27)Which is the example of non parallel power transmission (Universal coupling)?

28)For perpendicular shafts worm gear is used?

29)A planet gear with 25 teeth is meshed with a sun gear of 100 teeth. Both are connected using a arm. How many rotations are needed for planet gear to complete one rotation around the sun gear?

30)What is equivalent spring constant for spring in parallel?

31) Some questions was asked related to boundary layer and vortex flow.