PHYSICS - PRESSURE IN FLUIDS AND ATMOSPHERIC PRESSURE

TOTAL MARKS : 30
MAX. TIME : 45 minutes
PASSING MARKS : 15 Marks

Q1. Define the following : **6 marks**

A) What is thrust and its S.I unit
B) Define pascal, the S.I unit of pressure
C) What is fluid and fluid pressure ?

Q2. How does the contact area effects the pressure applied on to it ? **2 marks**
Q3. Define pascal's law transmission of pressure and its application. **4 marks**
Q4. Explain the working of hydraulic jack along with a diagram. **4 marks**
Q5.Why does liquid rise in the syringe when its piston is pulled up? **2 marks**
Q6. 2 cylindrical vessels fitted with pistons A and B of area 8 sq. cm & 320 sq. cm are joined at their bottom by a tube & they are completely filled with water. When a mass of 4kg is placed on piston A. Find: **4 marks**

i) The pressure on piston A and B
ii) The thrust on on piston B.

Q7. In a hydraulic machine, a force of 2N is applied on the piston of area 10sq.cm. What force is obtained on the other piston having cross section area of 100 sq. Cm ? **3 marks**
Q8. State the laws of liquid pressure. **3 marks**

*********ALL THE BEST**********