91) convert the following (ICFG to PDA 5 > a/b/c S -> asb and theck string acceptance for acabl PDA = (Q,E)F,S,20,Z0,FE={a,b}e} 20=90. Rules: 8 (9, E, A) = (9, x) When A > 3 Rule 2: 8(2,a,a) =(9,e) Apply the Rule 1 for Non Terminal. Given MonTerminals = V = { S } Apply the Rule 2 tol Terminals. Tz Terminals z {a,b} Guiven S > asb 8 > 9 n, than & ⇒b 8-> C

```
Rule 1: 5 (91, E, A) = (94, 8)
    R1: o( 9,6,8) = (9,086)
    Ra: 8 (9,0,5) = [ (9,0),
                           (de 19)
   18. Las 19, 123 (3, de) 2 (9, e) 2 (1)
Rulez: & (2, a, a) = (9, E)
  Apply to la, b) & 3,000
    R3: 8(9/10/0) 2(9/6)
    Ry: S(2,b,b) = (2)(E)
    RS: S(9,E,Zo) = (9,E).
 String acceptance for a a a bb
  8(9, aaabb, S) [R1)

(9, aaabb, asb) (R3)

(9, aaabb, asb) (R3)

(9, aaabb, sb) (R1)
             215 + (9, aabb) asbb)
Apply R3
              (9, aabb, asbb)
             + (q, abb, sbb) (R2)
          (d.8 7 F (9, abb, abb) (R3)
                  1- (2, bb, bb) - (R4)
       JUNIOUS (1014 1014 (C9126120) (RS)
           demonstriff (9, G)
                 Stack is empty & String
                               accepted
```

PDA = M=(Q, E, T, of 90, 20, F) Q=Q, $E=\{a_1b_2\}$ T={3,9,6,20},203,2032 (1) Zo = Zo , F=9 V, {a,b,€}, {S,a,b, zo}, €, 2,20,9) constauct PDA Hot the given CPG Q2. and test 010000 accepted by PDA or not (J(d, P) & : NX (S) > OBBB > 08/18/0/e 0000 priote Soly (181) Given S > OBBOTODO (P) 6 B, >05 18)(12 coldos (p) 12 >1S 3->0 (cs) (d)2 dd, (1) B > C ZNon ter minals = { S, B} int Eterminal = { 0,1, E} Apply Rule 1 For Non terminals Rule 2 for termonals ورز والحق

```
Rule 1 (3) & (94, E, A) = (94,0)
          where A > c
   RI (9 (9/16,5) =) (9/108B)
   Ra: 19 (9, E, B) = { (2,05)
                        (9,18)
    (7!!) (03,3(P) + (20,0)
                         (9,1E) 4
Rule 2: 106 (970,19) 1=(9,6)
    R3 :08(9,0,0) == (10216)
     Ry: 8(9, 1, 1) = (9, 6)
   R5:8 (9, 6,20) = (2,6) A19
  String acceptance to 010000 or 0164
 8(9,010000,S)+ (9,010000,OBB)(R1)
            - (9,010000 ,0BB) (R3)
            1- (9, 10000 / BB) (R2apply)
             1- (2, 10000, 18B) Apply R4
             H (9,0000, SB) (RD)
             - (2,0000,0BBB)(R3)
             H (2,000, BBB) (Res)
              H (9,000,08B) (Ra)
               H (9,00,BB) (R2)
```

(9,00,BB) (R2) H (9,00,0B) (R3) (880 H) (9/30 PB) (Rg) 17 30,00) (R3) 39 (21, P) + (2, e, 20) (R5) Stacking pempty and som (Shong vier, accepted of PDAZ MZG QUE, T, S, NO ZOJE) M = (9, {0,1,0}, {S,B,0,13,6,19 (12) (130 (000010) 19/ 7263,90) OBE - (a) 1 copo sele) (Regard H (9) 10000 (3E) APPLY RY (14) (E137 (41)) (H) (E4)(8)(4)(4)(5)(5)(5)(4) CF) (444, 400, 17) -1 640 (949) 400 (H) -1 sald Casa on a suit