DSE 2005 Answer Key
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Part I

1.(d) $(x_1, y_1) = (100, 100)$ and $(x_2, y_2) = (50, 0)$

2.(a) $(x_1, y_1) = (50, 50)$ and $(x_2, y_2) = (100, 50)$

3.(c) (1/3, 2/3)

4.(b) $(x_1, y_1) = (50, 50)$ and $(x_2, y_2) = (100, 50)$

5.(b) a Tribe

6.(d) a Tribe

7.(b) There are at least two sets of individuals that are both a Club and a Tribe.

8.(a) a Club

9.(a) $q_1 = a/3b$ and $q_2 = (a-3)/3b$

10.(b) The market share of the more efficient firm decreases.

11.(c) q_1 will increase and q_2 will decrease.

12.(d) produce nothing in plant 2.

13.(d) Every book by Bourbaki contains a chapter such that the validity of all the theorems in it is independent of the reader's gender.

14.(c) 11.2

15.(c) 1/3

16.(a) 5/8

17.(b) 2/9

18.(b) 1/2

19.(c) $2p^2$

20.(a) 2/3

21.(b) $n - n\bar{y}$

22.(c) 48/65

23.(c) 3

24.(c) right if the price level falls and/or the quantity of money rises.

25.(d) None of the above choices is correct

26.(b) one; zero

27.(a) IS curve was vertical and stuck at a low level of income.

28.(c) $\frac{1}{2}$; $-\frac{1}{2}$

29.(b) decreasing; decreasing

30.(a) increasing; increasing

Part II

1. (A) (a) Required Variance = 25/49+36/49 = 61/49
   (b) Required Variance = 50
   (c) Null Hypothesis:
   $H_0 : \mu_A - \mu_B = 0$
   Test statistic value:
   $z = \dfrac{(\bar{x}_A - \bar{x}_B)}{\sqrt{(25/36) + (36/49)}} \approx -20,$
   Null is rejected.

   (B) (a) True
   (b) True
   (c) False
   (d) False
   (e) True

2. Given the information we can derive that Aggregate supply curve will be vertical, hence an increase in supply of money will shift AD curve outwards and can only lead to rise in prices without affecting the output.

3. (A) (a) SC $= p_x x + (25p_y)/x$
   (b) LC $= 10\sqrt{p_x p_y}$
   (c) $x = 5\sqrt{\dfrac{p_y}{p_x}}$
   (d) $x = 3.5\sqrt{\dfrac{2p_y}{p_x}}$

   (B) $(q_1, q_2, q_3) = (1/2, 1/4, 1/8)$

4. (A) Refer textbook
   (B) (a) $a_{33} \neq -3$; (b) Price = 61/6

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