

## APPENDIX TO CHAPTER 5

### Appendix 5-A

#### REPRESENTATIVE QUESTIONS GIVEN TO THE STUDENTS

##### 2nd Trial of Group 4, Team A

Student's number \_\_\_\_\_

(1)	39528	(41)	72484	(81)	82474
(2)	81616	(42)	18711	(82)	53342
(3)	07586	(43)	16120	(83)	82641
(4)	90767	(44)	04235	(84)	13574
(5)	70188	(45)	28193	(85)	29593
(6)	34414	(46)	82157	(86)	86887
(7)	63439	(47)	75363	(87)	44989
(8)	67049	(48)	09070	(88)	93399
(9)	79495	(49)	04146	(89)	52162
(10)	91704	(50)	30552	(90)	04737
(11)	48545	(51)	35247	(91)	18619
(12)	75122	(52)	11724	(92)	74627
(13)	92904	(53)	13141	(93)	32392
(14)	69902	(54)	63742	(94)	78464
(15)	94972	(55)	11598	(95)	62095
(16)	19152	(56)	00023	(96)	12302
(17)	36024	(57)	00867	(97)	76378
(18)	94458	(58)	74284	(98)	05041
(19)	54158	(59)	34243	(99)	46978
(20)	75051	(60)	93029	(100)	47665
(21)	60365	(61)	94653	(101)	35075
(22)	83799	(62)	42402	(102)	56623
(23)	32960	(63)	07405	(103)	36409
(24)	19322	(64)	53845	(104)	57620
(25)	11220	(65)	94747	(105)	07399
(26)	31751	(66)	57260	(106)	68980
(27)	88492	(67)	99382	(107)	14454
(28)	30934	(68)	47744	(108)	07481
(29)	22888	(69)	48893	(109)	27499
(30)	78212	(70)	16993	(110)	35902
(31)	70014	(71)	15021	(111)	68971
(32)	37239	(72)	33295	(112)	18477
(33)	18637	(73)	37509	(113)	14707
(34)	05327	(74)	82162	(114)	83745
(35)	95096	(75)	67946	(115)	16930
(36)	43253	(76)	84145	(116)	20368
(37)	80854	(77)	09279	(117)	41196
(38)	80088	(78)	77074	(118)	66919
(39)	80890	(79)	18002	(119)	35352
(40)	93128	(80)	18464	(120)	79982

**2nd Trial of Group 1, Team B**

Student's number \_\_\_\_\_

(1)	395	28	(41)	724	84	(81)	824	74
(2)	816	16	(42)	187	11	(82)	533	42
(3)	075	86	(43)	161	20	(83)	826	41
(4)	907	67	(44)	042	35	(84)	135	74
(5)	701	88	(45)	281	93	(85)	295	93
(6)	344	14	(46)	821	57	(86)	868	87
(7)	634	39	(47)	753	63	(87)	449	89
(8)	670	49	(48)	090	70	(88)	933	99
(9)	794	95	(49)	041	46	(89)	521	62
(10)	917	04	(50)	305	52	(90)	047	37
(11)	485	45	(51)	352	47	(91)	186	19
(12)	751	22	(52)	117	24	(92)	746	27
(13)	929	04	(53)	131	41	(93)	323	92
(14)	699	02	(54)	637	42	(94)	784	64
(15)	949	72	(55)	115	98	(95)	620	95
(16)	191	52	(56)	000	23	(96)	123	02
(17)	360	24	(57)	008	67	(97)	763	78
(18)	944	58	(58)	742	84	(98)	050	41
(19)	541	58	(59)	342	43	(99)	469	78
(20)	750	51	(60)	930	29	(100)	476	65
(21)	603	65	(61)	946	53	(101)	350	75
(22)	837	99	(62)	424	02	(102)	566	23
(23)	329	60	(63)	074	05	(103)	364	09
(24)	193	22	(64)	538	45	(104)	576	20
(25)	112	20	(65)	947	47	(105)	073	99
(26)	317	51	(66)	572	60	(106)	689	80
(27)	884	92	(67)	993	82	(107)	144	54
(28)	309	34	(68)	477	44	(108)	074	81
(29)	228	88	(69)	488	93	(109)	274	99
(30)	782	12	(70)	169	93	(110)	359	02
(31)	700	14	(71)	150	21	(111)	689	71
(32)	372	39	(72)	332	95	(112)	184	77
(33)	186	37	(73)	375	09	(113)	147	07
(34)	053	27	(74)	821	62	(114)	837	45
(35)	950	96	(75)	679	46	(115)	169	30
(36)	432	53	(76)	841	45	(116)	203	68
(37)	808	54	(77)	092	79	(117)	411	96
(38)	800	88	(78)	770	74	(118)	669	19
(39)	808	90	(79)	180	02	(119)	353	52
(40)	931	28	(80)	184	64	(120)	799	82

## Appendix 5-B

### Actual Performance of Each Member in Different Teams

Actual number of correct answers of Team 1A  
(17 Students)

Trial 1	Trial 2	Trial 3	Trial 4	Average	
34	32	41	39	36.50	
51	52	55	51	52.25	
40	45	48	51	46.00	
37	43	50	51	45.25	
52	56	60	55	55.75	
53	52	55	59	54.75	
47	45	55	55	50.50	
59	64	66	72	65.25	
43	49	50	53	48.75	
29	27	33	37	31.50	
50	60	58	59	56.75	
40	43	42	45	42.50	
35	42	48	48	43.25	
59	63	73	72	66.75	
37	43	45	45	42.50	
44.40	47.73	51.93	52.80	49.22	Average
9.35	10.51	10.12	10.07	9.76	SD
87.40	110.50	102.50	101.31	95.22	Var

Note: Data in the shaded area are not used for ANOVA

Actual number of correct answers of Team 1B  
(16 Students)

Trial 1	Trial 2	Trial 3	Trial 4	Average	
23	38	42	40	35.75	
46	50	53	53	50.50	
53	59	56	56	56.00	
70	78	73	79	75.00	
55	71	70	75	67.75	
77	72	74	79	75.50	
58	69	67	67	65.25	
49	53	46	56	51.00	
47	59	57	55	54.50	
40	43	40	36	39.75	
46	53	47	55	50.25	
56	69	67	67	64.75	
52	63	65	69	62.25	
41	54	54	52	50.25	
49	47	48	46	47.50	
50.80	58.53	57.27	59.00	56.40	Average
12.57	11.67	11.40	13.30	11.80	SD
157.89	136.12	129.92	177.00	139.15	Var

Note: Data in the shaded area are not used for ANOVA

Actual number of correct answers of Team 2A (19 Students)

Trial 1	Trial 2	Trial 3	Trial 4	Average	
56	58	51	60	56.25	
35	37	42	44	39.50	
52	52	55	60	54.75	
31	38	43	47	39.75	
37	40	43	45	41.25	
44	53	53	52	50.50	
41	40	47	44	43.00	
39	43	42	50	43.50	
37	43	43	44	41.75	
63	40	34	37	43.50	
56	58	57	62	58.25	
58	61	60	61	60.00	
43	42	52	43	45.00	
54	42	63	57	54.00	
53	53	53	58	54.25	
46.60	46.67	49.20	50.93	48.35	Average
9.90	8.21	8.00	8.15	7.28	SD
97.97	67.38	64.03	66.35	52.97	Var

Note: Data in the shaded area are not used for ANOVA

**Actual number of correct answers of Team 2B (19 Students)**

Trial 1	Trial 2	Trial 3	Trial 4	Average	
31	41	44	47	40.75	
41	45	64	74	56.00	
36	45	44	55	45.00	
64	74	67	68	68.25	
62	71	70	69	68.00	
41	48	52	52	48.25	
61	67	57	60	61.25	
50	61	60	62	58.25	
52	67	60	57	59.00	
50	61	58	63	58.00	
54	56	57	64	57.75	
47	49	47	56	49.75	
58	61	76	99	73.50	
43	52	52	55	50.50	
34	39	47	45	41.25	
48.27	55.80	57.00	61.73	55.70	Average
10.46	11.18	9.58	13.04	9.81	SD
109.50	125.03	91.86	169.92	96.30	Var
63	78	70	83	73.50	
73	74	72	81	75.00	
57	63	63	66	62.25	
33	35	40	38	36.50	

Note: Data in the shaded area are not used for ANOVA

**Actual number of correct answers of Team 3A (16 Students)**

Trial 1	Trial 2	Trial 3	Trial 4	Average	
47	43	53	45	47.00	
41	38	46	49	43.50	
52	60	62	62	59.00	
52	57	63	68	60.00	
45	44	50	56	48.75	
45	50	57	54	51.50	
35	37	38	38	37.00	
52	58	56	57	55.75	
41	42	48	51	45.50	
36	34	40	47	39.25	
31	32	39	43	36.25	
51	67	77	67	65.50	
62	60	64	63	62.25	
41	51	52	48	48.00	
40	43	45	38	41.50	
44.73	47.73	52.67	52.40	49.38	Average
8.13	10.75	10.82	9.70	9.35	SD
66.07	115.50	117.10	94.11	87.42	Var
40	46	45	54	46.25	

Note: Data in the shaded area are not used for ANOVA

**Actual number of correct answers of Team 3B (17 Students)**

Trial 1	Trial 2	Trial 3	Trial 4	Average	
56	62	71	64	63.25	
37	45	46	45	43.25	
53	62	61	63	59.75	
51	62	55	65	58.25	
54	62	57	67	60.00	
45	58	43	53	49.75	
39	52	51	46	47.00	
48	51	57	56	53.00	
63	70	67	67	66.75	
69	71	78	84	75.50	
48	67	68	76	64.75	
68	62	65	68	65.75	
73	77	81	86	79.25	
70	71	69	91	75.25	
64	62	62	66	63.50	
55.87	62.27	62.07	66.47	61.67	Average
11.49	8.46	10.87	13.56	10.46	SD
131.98	71.50	118.21	183.98	109.46	Var
80	89	95	101	91.25	
104	101	99	111	103.75	

Note: Data in the shaded area are not used for ANOVA

**Actual number of correct answers of Team 4A (19 Students)**

Trial 1	Trial 2	Trial 3	Trial 4	Average	
33	38	37	42	37.50	
44	57	54	57	53.00	
44	51	56	62	53.25	
57	64	56	62	59.75	
48	60	55	56	54.75	
55	60	60	59	58.50	
90	81	88	90	87.25	
55	56	59	49	54.75	
52	63	63	67	61.25	
42	42	48	47	44.75	
55	60	48	49	53.00	
60	57	57	53	56.75	
62	65	72	71	67.50	
71	82	76	87	79.00	
52	55	56	53	54.00	
54.67	59.40	59.00	60.27	58.33	Average
13.41	11.70	12.29	13.80	12.27	SD
179.95	136.97	151.00	190.35	150.43	Var
60	59	65	67	62.75	
62	71	74	63	67.50	
59	57	54	56	56.50	
50	58	65	63	59.00	

Note: Data in the shaded area are not used for ANOVA

Actual number of correct answers of Team 4B (20 Students)

Trial 1	Trial 2	Trial 3	Trial 4	Average	
54	68	65	75	65.50	
48	64	61	54	56.75	
61	75	78	77	72.75	
74	87	81	91	83.25	
53	64	62	54	58.25	
62	69	61	64	64.00	
53	64	72	71	65.00	
43	66	70	51	57.50	
72	85	84	103	86.00	
43	67	65	60	58.75	
67	72	73	71	70.75	
71	79	77	80	76.75	
50	75	81	64	67.50	
52	65	78	65	65.00	
62	76	91	69	74.50	
57.67	71.73	73.27	69.93	68.15	Average
10.20	7.57	9.20	14.08	9.11	SD
104.10	57.35	84.64	198.35	83.08	Var

43	54	52	45	48.50
34	66	61	36	49.25
32	58	66	54	52.50
43	54	56	57	52.50
43	53	52	53	50.25

Note: Data in the shaded area are not used for ANOVA