TCS Mock 2 　　　　　　　　　　　**SOLUTIONS**

Section A: Verbal Reasoning

1. Ans. (a)	2. Ans. (a)	3. Ans. (b)	4. Ans. (a)	5. Ans. (e)	6. Ans. (e)	7. Ans. (d)
8. Ans. (c)	9. Ans. (e)	10. Ans. (d)	11. Ans. (e)	12. Ans. (c)	13. Ans.(d)	14. Ans. (e)
15. Ans. (e)	16. Ans. (c)	17. Ans. (d)	18. Ans. (b)	19. Ans. (b)	20. Ans. (e)	21. Ans. (b)
22. Ans. (c)	23. Ans. (b)	24. Ans. (c)	25. Ans. (d)	26. Ans. (e)	27. Ans. (e)	28. Ans. (c)
29. Ans. (c)	30. Ans. (b)	31. Ans. (e)	32. Ans. (b)	33. Ans. (b)	34. Ans. (d)	35. Ans. (c)
36. Ans. (e)	37. Ans. (d)					

Section B: Quantitative Aptitude

38. **Ans. (b) Solution:** A frog climbs 1 foot per 1 1/2 hours as during 30 minutes rest he slips back 2 feet. This way he will climb 12 feet in 18 hours. In next hour he will climb 3 more feet i.e. he will complete 15 feet in 19 hours and will reach the top of the wall

39. **Ans. (e)Solution:** Let the base be X. Therefore $(X*X + X*0 + 0) = (2*X +4) + (3*X + 2)$, $X*X = 5*X + 6$, $X*X - 5*X -6 = 0$, $(X-6)(X+1) = 0$ Therefore base is 6

40. **Ans. (c) Solution:** $3000+(4*4*9)+(4*8)$ row major form = 3000+ 176 = 3176 (ANS)

41. **Ans. (a) Solution:** Consider the time format as 24 hrs. Let the time already completed be x hrs. By the problem, Time left =1/5*x, Total time= $(1+1/5)*x = 6/5*x =24$, Therefore x = 20 hrs. Time is 8 pm

42. **Ans. (d)Solution**: By inspection , the question can be answered.

43. **Ans. (c)**

44. **Ans. (a) Solution:** Total change in degrees in east-west direction = 70 + 10 degress =80 degrees, Time change due to the change in longitude = 80*4 = 360 mins = 6 hrs. According to the person the time would have been = 2 am + 10 hrs = 12 am. But according to the local time the time would be = 12 – hrs = 6 am

45. **Ans. (a)Solution:** Total runs made in 52 nd innings = 52*52-51*51 = 103

46. **Ans. (b)Solution**: LISP

47. **Ans. (a)Solution:** Let the no of revolutions be "x". Since the distance covered by both the wheels will be same. Therefore, $9*x = 7*(x+10)$, hence x =35 Distance traveled = 35*9 =315 feet(Ans)

48. **Ans. (a)Solution**: There is a complicated way counting a sequence. Or simply knowing that if the fly is flying the 2 hours still at the same speed of 75 km/h then it flies a distance of 150 km.

49. **Ans. (b)Solution:** $x + y = 6$ and $-x + y =2$ solving these we get y = 4 km/hr

50. **Ans. (b)Solution:** There is an easy equation to reflect the several ages of Diophantos: $1/6x + 1/12x + 1/7x + 5 + 1/2x + 4 = x$ So the solution (x) is 84 years

51. **Ans. (b)Solution:** distance == speed x time
st == (s + .5) x .8t --------------------(1) st==.8st +.4t, 2st==.4t, s== 2KM
st== (s - .5)x(t+150) ------------------(2 Sustituting you will get the distance as 15 KMs

52. **Ans. (d) Solution:** (d-18)==st, d=st, d=(d-18), 180== 9d

53. **Ans. (c)Solution:** Since the track is a circular track A and B will meet every 50 seconds. ie 100/(10-8) Since it is a multiple of 50 they will be meeting at the starting point every 50 Seconds. if you multiply 15 x 50 you will get 750 and after the second 50 it will be 1500.All of them will meet at the starting point after 100s

54. **Ans. (b)Solution:** You can observe from the question that for additiion of 1 pen 7 pencils and 4 erasers rajan pays 50 % more.It implies that the cost of 4 pens is 50% of the total amount paid by Amal. Therefore cost of 5 pens will be 62.5% of the total cost.

55. **Ans. (b)Solution:** Let the distance between the meeting point of Auto at 10.00 Am and Amritsar be d The bus takes 2.5 Hours(150 minutes) to reach amritsar from that point. The bus commences its return journey at 1.30 PM and meets auto at 2.00 PM. The bus has thus travelled 30 Minutes. The bus would have covered 30/150 d.The auto has covered (1-1/5)d during the period. is 4/5th of the distance has been covered in 4 hours (2.00 PM -10.00 AM) The remaining 1/5th distance will be covered in 1 hour. The auto will reach Amritsar at 3.00 PM

56. **Ans. (a)Solution:** $x + 2y + 4z == 22$ and $5x + 4y + 2z == 32$ Solving we get $3x + 2 y == 14$ and $y + 3z == 13$, Adding both we get $3x + 3y +3z == 27$

57. **Ans. (d) Solution:** When car travels 1 mile each of 4 tyres sustain one miles's use.Therefore, when a car has traveled 20000 miles a total of 80000 tire miles has been used. Since this milege has been gathered on 5 tyres each tire must have been used for 16000 miles.

58. **Ans. (c)Solution:** The time is calculated on the basis of the intervals between the two strikings. So, It requires 6 secs to strike 7. Then it will take 7/6 sec for each interval. To strike 10 there are 9 intervals. Hence, for 9 intervals it will take 7/6*9 = 10.5 secs.

59. **Ans. (c) Solution:** let glasses delivered be x. Therefore $3.x – 9*(100-x) = 240$, X= 95 , Therefore glasses broken be 100 – 95 = 5

60. **Ans. (b)Solution**: No of cigarettes that can be rolled out = 36/6 = 6. From this 6 cigarettes another one can be made. Therefore 6+1 = 7

61. **Ans. (b)Solution**: Average speed = total distance traveled / total time taken = $\{(2d/3) + d\}/ \{(2d/ 3* 60)+(d/45)\} = 5d/3*90/3d = 50kmph$

62. **Ans. (d) Solution**: Ratio of time taken by A and B is 1: 1.2 i.e. 5:6 Let the time taken by A be 5x and by B be 6x , $1/5x + 1/ 6x = 1/60$ => x =22. Time taken by A = 5 * 22 = 110

63. **Ans. (e) Solution:** Say x is the no. $(42-x)/(61-x) = (18-x)/(25-x)$ => x= 4

64. **Ans. (d) Solution:** Let the initial expenditure on rice be rs 100 Changed expenditure on rice = rs 100 -19 = Rs 81. But the increased price of rice = Rs 108, if the earlier price was Rs 100. The percentage by which they should reduce the consumption = (108 - 81)/108 *100 =25 %

65. **Ans. (e)Solution:** Average score of arvind in first 3 exams = 60 Let the scores in the 5 exams be denoted by e1,e2,e3,e4,e5 e1+e2+e3 = 60 *3 =180 …………………(i) Average of last four exams = 70 e2+e3+e4+e5 = 70* 4 = 280…………………(ii) Average of all the exams
e1+ e2 +e3 +e4+e5 = 330 …………………(iii), (iii) *2 – (ii)+(i) gives e1+e4 +e5 = 660 – 460 = 200 average of these three exams = (e1 +e4 +e5)/ 3 = 200 /3 = 66 2/3

66. **Ans. (a) Solution:** It is really immaterial what percentage of the population is one legged. In any case the one legged people will all require one shoe per head. From the remaining, half will go barefooted and therefore they need no shoes. And the rest will need two shoes per head . And this works out at one shoe per person for the others. Therefore for the whole population on the average one shoe per head

67. **Ans. (e)Solution:** Lets the years to go be x , $2/3*(99-x) = 4/5 *x$ hencex = 45 years

68. **Ans. (c) Solution:** Let the no of revolutions be "x". Since the distance covered by both the wheels will be same. Therefore, $9*x = 7*(x+10)$ so x =35. Distance traveled = 35*9 =315 feet

69. **Ans. (c) Solution:** The answer will be $1^2+2^2+3^2+\ldots\ldots+8^2 = n(n+1)(2n+1)/6 = 8*(8+1)(2*8+1)/6 = 204$

70. **Ans. (b) Solution:** From the given function g[n]=2*g[n-1]-3*g[n-2] put values of n as first 2 then 3, then 4 and you will get the answer. G[2] = 2*g[1]-3*g[0]=-2-3 =-5 , G[3]=2*g[2]-3*g[1] =2*(-5)-3*(-1)=-7, G[4]=2*g[3]-3*g[2]=2*(-7)-3*(-5) =1

71. **Ans. (d) Solution:** Let us consider the ages of the man, his father & his son is m, f & s respectively. Then according to the problem F=5s…………(i) S+f-m = m+8……..(ii) F+m = 100………..(iii) Putting (i) in (iii) we get 5s+m=100……..(iv) Putting (i) in (ii) we get 6s-2m=8…………(v)Equating (iv) & (v) we get **s** = 13,f = 65 & m = 36

Section C: Analytical Reasoning

Solutions for questions 72-75: Based on the information given and then through the process of elimination a table can be drawn

Name	Breed	Owner	Prize
K	C	H	1
M	B	E	2
J	A	G	3
L	D	F	4

72. **Ans. (b) Solution:** As evident from the table.
73. **Ans. (c) Solution:**
74. **Ans. (c) Solution:** Statement I is false because Mr. Edward's dog won the second prize and the Airdale third. Statement II is false because Mr. Grossman's dog is Jack. Statement III is correct as it identifies the winners of second, third, and fourth prizes.
75. **Ans. (a) Solution:** As per table.

Solutions for questions 76-80: The information becomes easy to read with the help of tree diagram
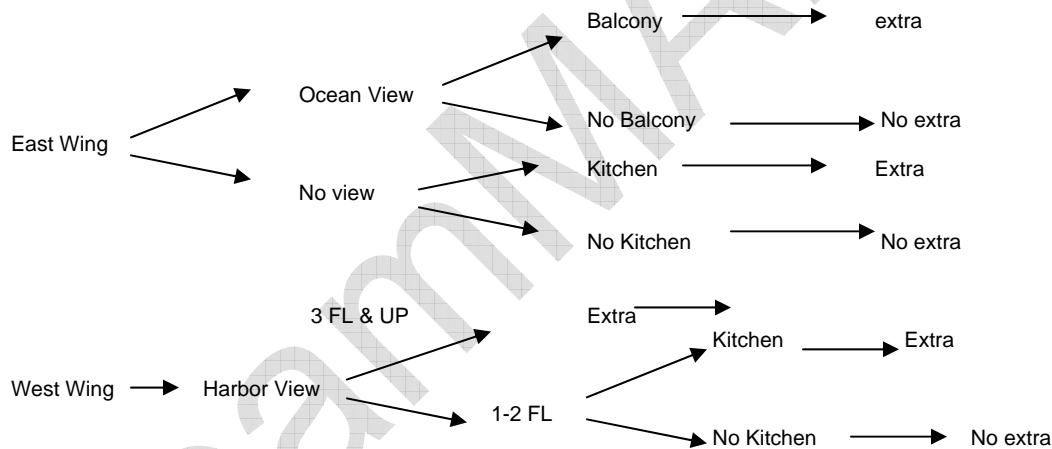
76. **Ans. (d) Solution:** This information is obtained from the diagram. Some rooms in choice A and C have kitchen facilities; the rooms described in choice B all involve an extra charge; and ocean view rooms with balcony but without kitchen (E) involve extra charge.
77. **Ans. (b) Solution:** There are extra charges Ocean View with balcony; harbor view 3rd floor and up; rooms with kitchen facilities. But some ocean view rooms without balcony and some no-view, no-kitchen East wing rooms may be above 3rd floor (A). Other choices are not true.
78. **Ans. (c) Solution:** This statement directly contradicts the argument given in the paragraph, other choices are true.
79. **Ans. (a) Solution:** We don't know whether any West Wing rooms above the second floor or with kitchen facilities have balconies(I). But we know that East Wing rooms without view or kitchen have no extra attached(II) and that all kitchen facilities are in rooms not otherwise subject to extra charge(III).
80. **Ans. (a) Solution:**
81. **Ans. (e) Solution:**
82. **Ans. (a) Solution:**
83. **Ans. (c) Solution:**

Fall seven times, stand up eight. – Japanese Proverb.