

Asst Manager (Sys) 2024 - Pre Examination Training for Eligible Candidates: Quantitative Aptitude - Set 4

S.N.	Question	Choice1	Choice 2	Choice 3	Choice 4	Choice 5	Right Ans (Numeric)	Explanation
	Direction (Q 1-Q 6): The data given below is about the employees of an university. Read the data carefully and answer the questions							
	The ratio of male to female employees in a university is 5 : 7. All employees of the university work at different levels. (Level- A,B,C,D,E). 50/3% of the male employees work at level A. The difference between male employees working at level B and male employees working at level D is 114, while the sum of the same is 250. (male employees at level B < male employees at level D). 9 male employees work at level E, which is 2% of the total number of male employees. Remaining male employees work at level C . 200/9% of the female employees work at level A. The no.of female employees working at level B is 6 more than the no. of female employees working at level C. The number of female employees working at level D is 2 more than the number of male employees at the same level. The number of female employees working at level E is 400/7% of the female employees working at level A.							<p>Let total no. of male employees working in the university be x; Let total no. of female employees working in university be y; 2%of x=9; x=450; 5:7=450:y; y=630; Total No. of employee= 450+630=1080; no. ofmale employees at level A= $(50 \times 450) / (3 \times 100) = 75$; Let no. of male employees at level B=m; and at level D=n; n-m=114; n+m=250; n=182; m= 68; No. of male employees at D= 182; No. of male employees at B= 68; no. of male employees at C= 450-(75+68+182+9)=116; No. of female employees at level A= $(200 \times 630) / (9 \times 100) = 140$; No. of female employees at E = $(400 \times 140) / (7 \times 100) = 80$; No. of female employees at D=182+2=184; Let the no. of female employees at level C be z; no. of female employees at level B=z+6; Now since total female employees = 630; 140+z+6+z+80+184=630; z=110; No. of female employees at C= 110; No. of female employees at B= 110+6=116;</p>
1	Find the total number of employees working on level B?	174	176	168	184	192	4	No. of employees at B= 68(male)+116(female)=184
2	Female employees working on level E constitutes what percent of total number of employees in the university?	5.63	7.41	8.35	5.67	6.33	2	Required %=(80*100)/1080=7.41%
3	What is the respective ratio of male employees working at level A to the female employees working at level E?	12:13	07:09	15:16	13:17	11:15	3	Required ratio: 75:80=15:16

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4	What is the total number of employees working at level A, level B and level C?	575	610	620	590	625	5	Total employees at A= 75+140=215; Total employees at B=68+116=184; Total employees at C=116+110=226; Total employees at A,B and C= 215+184+226=625
5	No. of female employees together at level D and E is ----- than no. of male employees at level A and B by-----	more, 121	less, 70	more, 65	less, 67	more, 60	1	Total No. of female employees at level D and E together= 184+80=264; Total No. of male employees at level A and B together= 75+68= 143; At the mentioned level, number of female employees is more by 121
6	At level A; no. of male employees is what % of no. of female employees	55.57%	58.21%	60.67%	53.57%	57.53%	4	Required % = (75*100)/140=53.57

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	Direction (7-10) :Study the following table and answer the questions given below. The following table contains marks scored by 5 students in 6 different subjects							
		Geography	Civics	History		Physics	Sanskrit	Chemistry
	A	210	180	169		137	140	120
	B	310	175	125		315	140	122
	C	240	160	188		173	410	130
	D	180	150	225		180	146	130
	E	320	150	185		178	145	115
7	A scored 17.67% of total marks in which subject ?	Civics	History	Physics	Geography	Can't be determined	2	Total marks obtained by A in all subjects is 956. 169 marks scored in history is 17.67% of total marks scored by A
8	Total marks obtained by C in History and Physics is what % of marks scored by B in Geography ?	116	113	123	131	132	1	Total marks obtained by C in History and Physics is 361 and B in Geography is 310. (361*100)/ 310 = 116.45%
9	D scored highest marks in which subject ?	Civics	History	Physics	Geography	Can't be determined	2	Directly available in table
10	The average of total marks(approx) obtained by A in all 6 subjects is	155	156	158	159	170	4	Total marks obtained by A in all 6 subjects is 956 956/6 = 159.33

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S.N.	Question	Choice1	Choice 2	Choice 3	Choice 4	Choice 5	Right Ans (Numeric)	Explanation
	Directions (11-15): Read the given data carefully and answer the question based on it. There are 3 vessels named – A, B and C. All contain mixture of milk, water and juice. Vessel B contains mixture of volume 150 liters. Ratio of quantity of juice and water in vessel B is 3: 2 while that of milk and water is 1: 2. Water in vessel B is 66.67% more than juice in vessel C. Juice in vessel A is 80% of total juice in vessel B and C taken together. Water in vessel C is 20% less than juice in vessel B. In vessel A, ratio of water and juice is 5: 6. Ratio between milk and water in vessel C is 5: 4. Milk in vessel A is 2% less than total milk in vessels B and C together.							
11	Find the ratio between total milk in vessel A and B together and water in vessel B and C together.	123:110	87:74	117:101	134:115	None of these	1	Let quantity of juice and water in vessel B be 3a and 2a respectively. Quantity of milk in vessel B = $2a \times \frac{1}{2} = a$ So, $a + 3a + 2a = 150$ $a = 25$ So, quantity of Milk, water and juice in vessel B is 25, 50 and 75 liters respectively. Quantity of juice in vessel C = $50 \times \frac{3}{5} = 30$ Litre Quantity of juice in vessel A = $80/100 \times (75 + 30) = 84$ Litre Quantity of water in vessel C = $80 \times 100 \times 75 = 60$ Litre Quantity of water in vessel A = $84 \times \frac{5}{6} = 70$ Litres Quantity of milk in vessel C = $60 \times \frac{5}{4} = 75$ Litres Quantity of milk in vessel A = $98/100 \times (25 + 75) = 98$ Litres
12	. If 36 liters' mixture from vessel A is taken out, then find the difference between quantity of juice in vessel A and that in vessel B.	5 liter	12 liter	3 liter	1 liter	7 Liter	3	Vessel Quantity of Milk , Water, Juice Total A 98 , 70 , 84 , 252 B 25, 50, 75, 150 C 75, 60, 30, 165 Total 198, 180, 189, 567

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S.N.	Question	Choice1	Choice 2	Choice 3	Choice 4	Choice 5	Right Ans (Numeric)	Explanation
13	Find the sum of amount of quantity in vessel B and that in vessel A together.	315 Liters	402 Liters	417 liters	354 liters	378 liters	2	Required sum = 252 + 150 = 402 Liter
14	From vessel B, 9 liters of mixture is taken out, in next step, 18 liters mixture is again taken out from same vessel. In final step, 27 liters mixtures is taken out from same vessel, then find the difference between amount of milk and juice remained finally in this vessel.	16 liters	32 liters	24 liters	28 liters	36 liters	2	The mixture of remaining quantity in vessel B will remain same in all the steps. Respective ratio of quantity of milk, water and juice in vessel B = 25: 50: 75 = 1: 2: 3 So, remaining quantity of milk in vessel B = $25 - \frac{1}{6} \times (9 + 18 + 27) = 16$ liters Remaining quantity of juice in vessel B = $75 - 36 \times (9 + 18 + 27) = 48$ liters So, required difference = $48 - 16 = 32$ liters
15	If from vessel A, vessel B and vessel C 20%, 40% and 55% quantity taken out and put into another vessel X, then find the difference between quantity of water and juice in the mixture.	4.2 liter	5.4 liter	3.7 liter	4.7 liter	6.3 liter	3	. Required difference = $(70 - 84) \times 20/100 + (50 - 75) \times 40/100 + (60 - 30) \times 55/100$ = $-2.8 - 10 + 16.5$ = 3.7 liters