

Asst Manager (Sys) 2024 - Pre Examination Training for Eligible Candidates: Quantitative Aptitude - Set 3

S.N.	Question	Choice1	Choice 2	Choice 3	Choice 4	Choice 5	Right Ans (Numeric)	Explanation																
	Direction (Q.1 - Q.7): The following pie-chart shows the percentage distribution of the expenditure incurred in publishing a book. Study the pie-chart and answer the questions based on it																							
	<div>Various Expenditures (in%) incurred in Publishing a book</div> <table><thead><tr><th>Expenditure Category</th><th>Percentage (%)</th></tr></thead><tbody><tr><td>Binding</td><td>30%</td></tr><tr><td>Paper cost</td><td>15%</td></tr><tr><td>Printing Cost</td><td>10%</td></tr><tr><td>Royalty</td><td>20%</td></tr><tr><td>Promotion</td><td>10%</td></tr><tr><td>Transportation</td><td>10%</td></tr><tr><td>Miscellaneous</td><td>5%</td></tr></tbody></table>								Expenditure Category	Percentage (%)	Binding	30%	Paper cost	15%	Printing Cost	10%	Royalty	20%	Promotion	10%	Transportation	10%	Miscellaneous	5%
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1	What is the central angle (in degrees) of the sector corresponding to the Miscellaneous Expenditure	12°	14°	10°	15°	18°	5	Central angle corresponding to the Miscellaneous expenditure=5% of 360°=18°																
2	Which two expenditures together have a central angle of 54°	Transportation & Paper Cost	Printing Cost & Paper Cost	Royalty & Promotion	Transportation & Miscellaneous	Binding & Miscellaneous	4	Central angle of 54°= (54*100/360)% of the total expenditure; 15% of the total expenditure; Out of the given option, miscellaneous expenditure and Transportation expenditure together forms 15% of the total expenditure and have a central angle of 54°																
3	Paper cost is less than binding cost by what % ?	90%	95%	100%	80%	85%	3	Paper Cost of the book = 15% of CP; Binding Cost of the book=30% of CP; Difference=(30% of CP)-(15% of CP)=15% of CP; %Difference=(Difference*100)/Printing cost= 15*100/15=100%																

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4	If for certain quantity of books, the publisher has to pay Rs 30,600 as Royalty , what will be the expenditure (in Rs) incurred as paper cost for these books?	21750	22950	23570	22590	22470	2	Let the expenditure incurred towards paper cost for the books be x; $20:15=30600:x$; $x=Rs\ 22950$
5	If 5500 copies are published and the transportation cost on them amounts to Rs 88000, what should be the selling price of each book so that the publisher can earn a profit of 25%?	180	210	200	220	215	3	For the publisher to earn a profit of 25%, $SP=125\%$ of CP; Transportation cost= 10% CP Let the SP of 5500 books be Rs x; $10:125=88000:x$; $x=(125*88000)/10$; $x=11,00,000$; SP of 1 book= $1100000/5500=200$
6	If the difference between the two expenditures are represented by 54° in the pie chart, then these expenditures possibly are and	Royalty and Printing Cost	Royalty and Paper Cost	Binding and Paper cost	Binding and Promotion	Binding and Royalty	3	Central angle of $54^\circ = (54*100/360)\%$ of the total expenditure; 15% of the total expenditure; Out of the given option, Expenditure difference in Binding and Paper cost is 15% of total expenditure.
7	If for an edition of the book, the cost of paper is Rs 60000, find the promotion cost (in Rs) for this edition?	37500	41000	39000	40000	40500	4	Let the promotion cost for the edition be x; $15:10=60000:x$; $x=40000$

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	Direction (Q.8 - Q.12): A company produces health drinks of three different flavours A,B and C . The production of the three flavours over the period of 6 years has been provided in the bar graph below.Study the graph and answer the questions based on it.																																			
	<div><p>Production of 3 different flavours of health drinks A,B,C by a Company over the years(in lakh bottle)</p><table><thead><tr><th>Year</th><th>A</th><th>B</th><th>C</th></tr></thead><tbody><tr><td>2014</td><td>55</td><td>50</td><td>45</td></tr><tr><td>2015</td><td>50</td><td>40</td><td>60</td></tr><tr><td>2016</td><td>60</td><td>55</td><td>50</td></tr><tr><td>2017</td><td>55</td><td>45</td><td>60</td></tr><tr><td>2018</td><td>50</td><td>60</td><td>45</td></tr><tr><td>2019</td><td>55</td><td>50</td><td>40</td></tr></tbody></table></div>								Year	A	B	C	2014	55	50	45	2015	50	40	60	2016	60	55	50	2017	55	45	60	2018	50	60	45	2019	55	50	40
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8	For which of the following years the percentage of rise/fall in production from the previous year is maximum for flavour A	2015	2016	2017	2018	2019	2	The percentage rise/fall in production from previous year for flavour A duiring the various years are: In 2015 : (55-50)*100/55=9.09% (decrease) In 2016: (60-50)*100/50=20%(increase) In 2017: (60-55)*100/60=8.33%(decrease) In 2018:(55-50)*100/55=9.09% (decrease) In 2019: (55-50)*100/50=10% (increase) ; Maximum change is increase of 20% in 2016																												

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S.N.	Question	Choice1	Choice 2	Choice 3	Choice 4	Choice 5	Right Ans (Numeric)	Explanation
9	For which flavour the average annual production is maximum in the given period	A only	A and B	A and C	B only	B and C	1	Average annual production for A: $(55+50+60+55+50+55)/6=54.17$ lakh bottles; B: $(50+40+55+45+60+50)/6=50$ lakh bottle C: $(45+60+50+60+45+40)/6=50$ lakh bottles; Maxium average production is for A
10	The total production of flavour C in 2016 and 2017 is what percentage of total production of flavour B in 2014 and 2015	110.75%	133.33%	98.66%	115.33%	122.22%	5	Required % : $(50+60)*100/(50+40)=(110*100)/90=122.22\%$
11	What is the difference (in lakh bottles) between the average production of flavour A in 2014,2015 and 2016 and the average production of flavour C in 2017,2018 and 2019 ?	5.57	6.67	5.87	6.37	5.77	2	Average production for A in 2014,2015 and 2016: $(55+50+60)/3= 55$ lakh bottles; Average production for C in 2017,2018 and 2019: $(60+45+40)/3= 145/3=48.33$ lakh bottles; Requires difference= $55-48.33= 6.67$ lakh bottle
12	What was the decline in the production in flavour C in 2019 as compared to the production in 2015	10%	25%	33.33%	13.33%	16.67%	3	Required % decline : $(60-40)*100/60= 33.33\%$

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S.N.	Question	Choice1	Choice 2	Choice 3	Choice 4	Choice 5	Right Ans (Numeric)	Explanation
13	In an exam for a Bank Clerk, consisting of 200 questions, you attempted 45% of the first 60 questions correctly. How many of the remaining 140 questions need to be answered correctly to score overall 65% in the exam considering that there are no negative marks?	120	123	113	103	108	4	Required number of correct answers is 65% of 200 that is 130. Already correctly answered questions are 45% of 60 i.e. 27. Remaining questions to be answered are 130-27=103 out of remaining 140 questions.
14	N is a whole number which gives remainder 5 when divided by 6. The remainder when 2N is divided by 6 is ____.	2	1	4	3	5	3	On dividing N by 6, if remainder is 5; then the remainder on dividing by 2N will be 5+5 =10. This (10) can be further divided by 6 which gives remiander of 4.
15	Two numbers differ by 4. If their product is 117, then what is the sum of the two numbers ?	21	26	22	28	30	4	Let the larger number be x and smaller number be y. $x - y = 4$ $xy = 117$ After deducing the equations $x = 13$ and $y = 9$ So, $x + y = 22$.