

1a).Net Present Value of The project = Present Value of Inflows- Intial Investment						
Particulars/ye	0	1	2	3	4	5
Intial Investment	10000000					
Working	300000					
Revenue	0	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Cash Fixed Cost		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Cash Variable cost		2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Depreciation		2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Gross Profit		5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Tax		1,700,000	1,700,000	1,700,000	1,700,000	1,700,000
Net Profit		3,300,000	3,300,000	3,300,000	3,300,000	3,300,000
Cash Inflow		5,300,000	5,300,000	5,300,000	5,300,000	5,300,000
Discounting Rate		0.909090909	0.826446281	0.751314801	0.683013455	0.620921323
Present value		4,818,182	4,380,165	3,981,968	3,619,971	3,290,883
Total Present Value of the Inflows for 5 Years				20091169.88		
Add: Present value of Working capital				186276		
				<u>20277445.88</u>		
Therefore, NPV of Project = <u>\$9,977,446</u>						
NPV of the project is positive. It is expected to create the wealth for Blinkerai Limited, so it must be accepted.						

b). SENSITIVITY ANALYSIS						
Sensitivity analysis of NPV with respect to no.of units sold.						
To compute the breakeven point, NPV=0						
$PVIFA(10\%,5)*CF + 186276 - \text{Initial Investment} = 0$						
PVIFA = 3.790787						
$3.790787*cf + 186276 - 10300000 = 0$						
cf = 2667974.75						
Margin of Safe 50						
This means, if there is unfavourable deviation of 50% in CF, then NPV would be negative.						
So, now NPV Is calculated with decrease in 10% of units.						
Particulars/ye	0	1	2	3	4	5
Intial Investment	10000000					
Working	300000					
Revenue	0	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000
Cash Fixed Cost		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Cash Variable cost		1,800,000	1,800,000	1,800,000	1,800,000	1,800,000
Depreciation		2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Gross Profit		4,200,000	4,200,000	4,200,000	4,200,000	4,200,000
Tax		1,428,000	1,428,000	1,428,000	1,428,000	1,428,000
Net Profit		2,772,000	2,772,000	2,772,000	2,772,000	2,772,000

Discounting Rate	0.909090909	0.826446281	0.751314801	0.683013455	0.620921323	
Present value	2,754,182	2,503,802	2,276,183	2,069,258	1,881,143	
Total Present Value of the Inflows for 5 Years						
				11,484,568		
Add: Present value of Working capital						
				<u>186,276</u>		
				11,670,844		
Therefore, NPV of Project = \$1,370,844						
NPV in the best case scenario.						
Particulars/Year	0	1	2	3	4	5
Initial Investment	10000000					
Working	300000					
Revenue	0	15,600,000	15,600,000	15,600,000	15,600,000	15,600,000
Cash Fixed Cost		900,000	900,000	900,000	900,000	900,000
Cash Variable Cost		2,340,000	2,340,000	2,340,000	2,340,000	2,340,000
Depreciation		2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Gross Profit		10,360,000	10,360,000	10,360,000	10,360,000	10,360,000
Tax		3,522,400	3,522,400	3,522,400	3,522,400	3,522,400
Net Profit		6,837,600	6,837,600	6,837,600	6,837,600	6,837,600
Cash Inflow		8,837,600	8,837,600	8,837,600	8,837,600	8,837,600
Discounting Rate	0.909090909	0.826446281	0.751314801	0.683013455	0.620921323	
Present value	8,034,182	7,303,802	6,639,820	6,036,200	5,487,454	
Total Present Value of the Inflows for 5 Years						
				33,501,457		
Add: Present value of Working capital						
				<u>186,276</u>		
				33,687,733		
Therefore, NPV of Project = \$23,387,733						
Since in question probability of each case is not given, it is taken as equal for all the cases i.e. .33%						
Therefore , probability based weighted NPV = \$11,462,888						