

Fig. 6

Fig. 6 shows the behavior of difference between the availability of the system i.e. $A_2 - A_1$ with respect to rate of occurrence of faults (λ_5) for different values of repair rate (β_e). The graph reveals that the availability difference of the two models decreases with increase in the values of rate of faults however increases with the increase in the repair rate.

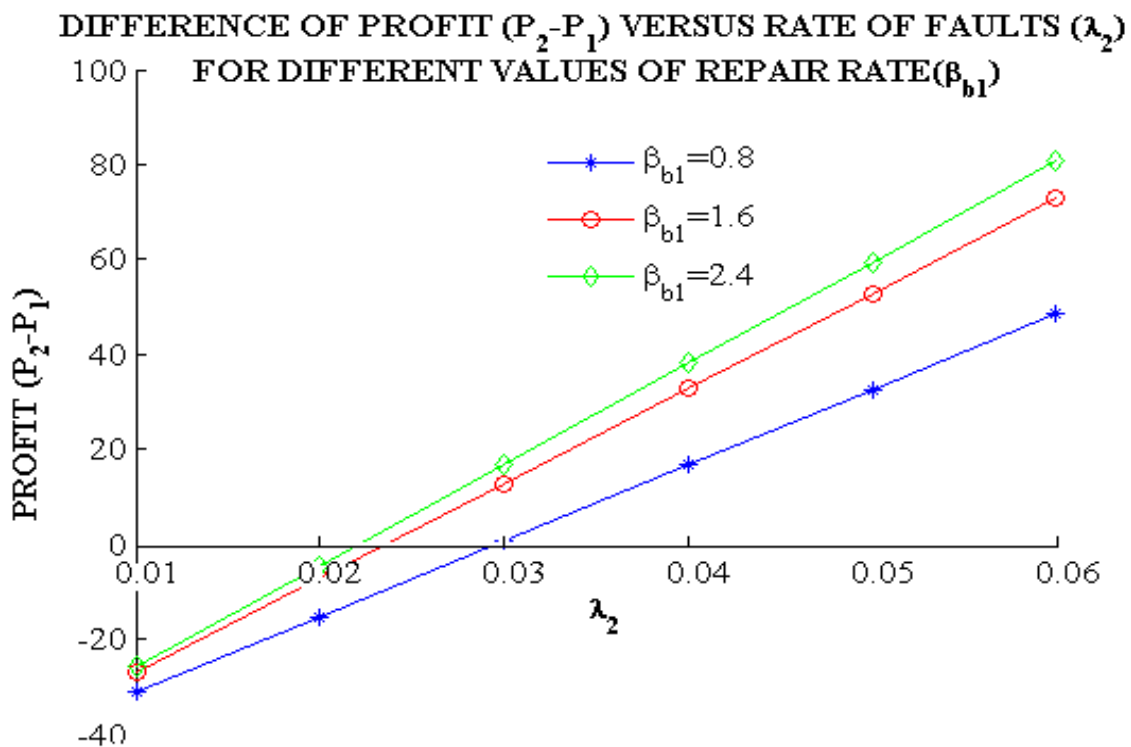


Fig. 7

The graph in **Fig. 7** shows the pattern of difference of profits ($P_2 - P_1$) with respect to the rate of faults (λ_2) for different values of rate of time to repair (β_{b1})

The curves in the graph indicate that

- (i) The profits difference of the models increases with the increase in both the values of the rate of time to repair and the rate of faults.
- (ii) For $\beta_{b1} = 0.08$ the difference of profit is $>$ or $=$ or $<$ 0 according as λ_2 is $>$ or $=$ or $<$ 0.0228 . Hence the model 1 is more profitable than model 2 to the company whenever $\lambda_2 < 0.0228$.
- (iii) For $\beta_{b1} = 1.6$ the difference of profit is $>$ or $=$ or $<$ 0 according as λ_2 is $>$ or $=$ or $<$ 0.0241 . Hence the model 1 is more profitable than model 2 to the company whenever $\lambda_2 < 0.0241$.
- (iv) For $\beta_{b1} = 2.4$ the profits difference is $>$ or $=$ or $<$ 0 according as λ_2 is $>$ or $=$ or $<$ 0.0297 . Hence the model 1 is more profitable than model 2 to the company whenever $\lambda_2 < 0.0297$.

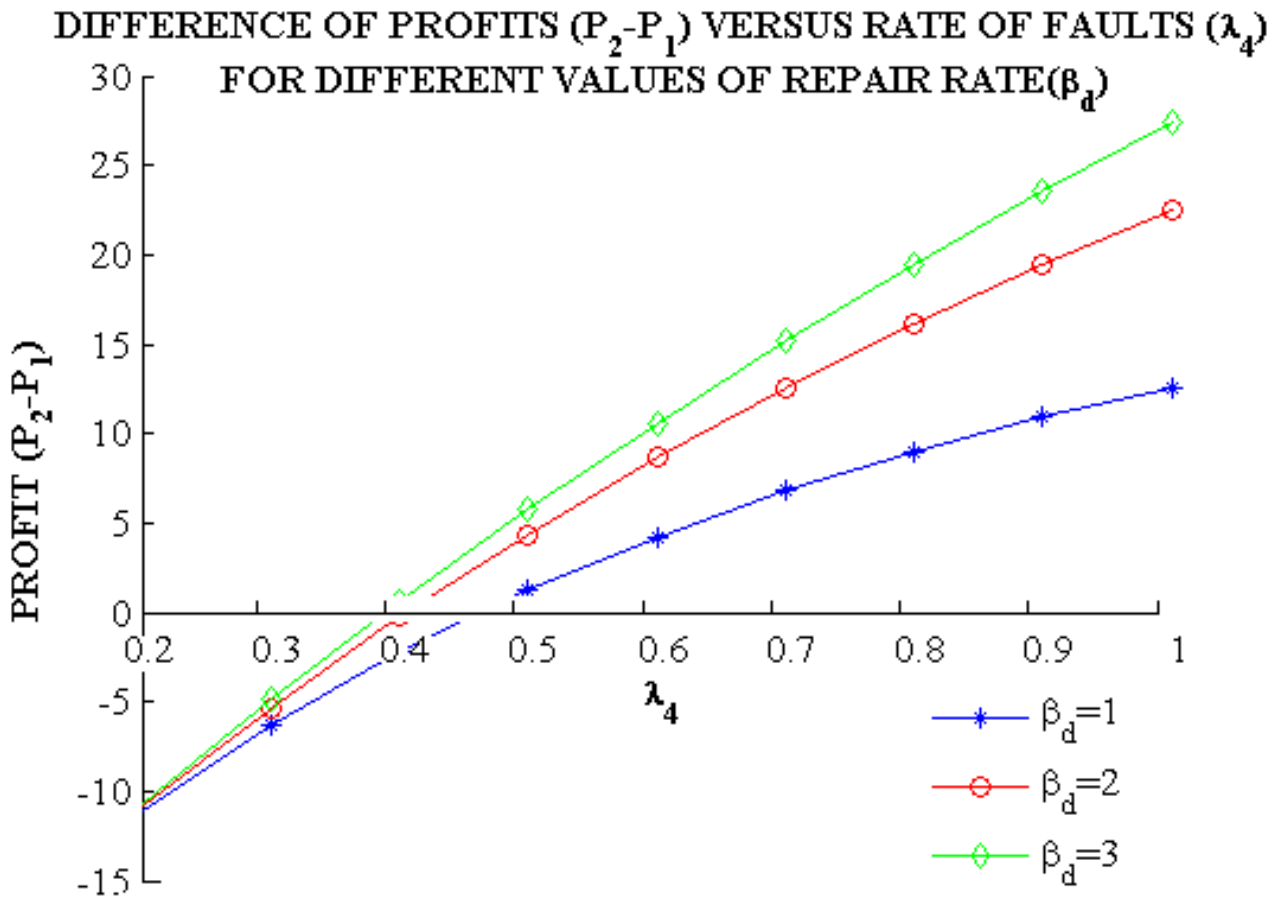


Fig. 8

The graph in **Fig. 8** shows the pattern of difference of profits ($P_2 - P_1$) with respect to the rate of faults (λ_4) for different values of rate of time to repair (β_d)

The curves in the graph indicate that

- (i) The profits difference of the models increases with the increase in both the values of the rate of time to repair and the rate of faults.
- (ii) For $\beta_d = 1$ the difference of profit is $>$ or $=$ or $<$ 0 according as λ_4 is $>$ or $=$ or $<$ 0.4002 . Hence the

model 1 is more profitable than model 2 to the company whenever $\lambda_4 < 0.4002$.

- (iii) For $\beta_d = 2$ the difference of profit is $>$ or $=$ or $<$ 0 according as λ_4 is $>$ or $=$ or $<$ 0.4121 . Hence the model 1 is more profitable than model 2 to the company whenever $\lambda_4 < 0.4121$.
- (iv) For $\beta_d = 3$ the profits difference is $>$ or $=$ or $<$ 0 according as λ_4 is $>$ or $=$ or $<$ 0.4819 . Hence the model 1 is more profitable than model 2 to the company whenever $\lambda_4 < 0.4819$.

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