

ST. JOSEPH'S COLLEGE (AUTONOMOUS) BENGALURU-27
MID SEMESTER EXAMINATION- AUGUST 2019
BSF- I SEMESTER
BSF1319 -Quantitative Techniques- I

TIME: 1 Hour

MAX. MARKS: 30 Marks

SECTION A

Answer any FIVE of the following questions. Each question carries two.marks. (5x2=10)

- 1) Find the mean proportion of 4:9
- 2) The difference between the Compound interest and Simple Interest on a sum of money is Rs 48 at 20% for 2 years . Find the sum
- 3) A Traffic light at 4 different signals change at 60 sec, 84. Sec, 102 sec and 120 sec. what time will they all change together?
- 4) There are two numbers such that the sum of the first and three times the second is 53,while the difference between four times the first and twice the second is 2 .Find the numbers
- 5) A:B = 3:7 B:C=6:1 C:D= 4:2 Find A:D
- 6) A father's age is five times that of his son. Six years from now the fathers age will be three times the sons age. Find their ages?
- 7) Sai can do a piece of work in 24days and Rashmi can do it in 20days. With the help of Kumar they finish in 8days. How long will Kumar take to do the work alone?

SECTION B

Answer any TWO of the following questions. Each question carries five marks. (2x5=10)

- 8) A sum of Rs18750/- is left by a Will by a father to be divided between two sons aged 12 and 14years with the instruction that when they attain 18years of age the amount received by each at 5% simple interest will be the same. Find the sum allotted to each son?
- 9) Solve for a : $\frac{2}{a-1} + \frac{3}{a+4} = \frac{5}{a+3}$
- 10) A motor cycle left 30mins later than the scheduled time in order to reach its destination 1500kms away with the speed increased by 250/hr from its initial speed. Find the initial speed?

SECTION C

Answer the following compulsory question. The question carries ten marks. (1x10=10)

- 11) A) If you deposit Rs 8000 into an account paying 7% interest compounded quarterly. How long till it amounts to Rs12400? (5marks)
B) The incomes of Rahul and Rishi are in the ratio 3:4 and their expenditures are in the ratio 5:7. If each of them save Rs1000, find their monthly income? (5marks)

***** End of Question Paper *****