

Q.1 Answer in following multiple choice question by selecting correct option from given options in. (Any 6)

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- 1) 18% of is 90.
a) 300 b) 200 c) 500 d) none of these
- 2) $5^2 \times 5^2 =$
a) 5^4 b) 5^{16} c) 5^8 d) none of these
- 3) $\frac{3}{8} + \frac{4}{5} =$
a) $\frac{47}{40}$ b) $\frac{12}{40}$ c) $\frac{15}{40}$ d) none of these
- 4) H. C. F. of 18 and 54 is
a) 18 b) 16 c) 12 d) none of these
- 5) L. C. M. of 36 and 144 is
a) 144 b) 96 c) 36 d) none of these
- 6) The ages of three persons is in the ratio of 2:5:3 if the sum of their ages is 100; find the age of 3rd person.
a) 30 b) 50 c) 20 d) none of these
- 7) If $8 : x :: 24 : 40$, then x is equal to
a) 40 b) 20 c) 60 d) none of these
- 8) { 3, 5, 7 } is called a set of
a) Natural Numbers b) Integers c) Odd Numbers d) none of these

B) Answer in following multiple choice question by selecting correct option from the given options in (Any 3).

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- 1) A, B and C invested Rs. 50,000, 40,000 & Rs. 3,000 in a business. If they realized a net profit of Rs. 2,400 Then C will get Rs.
a) 1,000 b) 600 c) 800 d) none of these
- 2) L.C.M. of 310, 372 and 186 is
a) 62 b) 5580 c) 1860 d) none of these
- 3) Arrange in ascending order $\frac{8}{12}, \frac{18}{24}, \frac{13}{18}$
a) $\frac{8}{12}, \frac{18}{24}, \frac{13}{18}$ b) $\frac{8}{12}, \frac{13}{18}, \frac{18}{24}$ c) $\frac{13}{18}, \frac{18}{24}, \frac{8}{12}$

Q.2 Attempt Answer any two of the following.

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- 1) Mr. Sanjay invested Rs. 3100 in 6% shares at Rs. 124 each. How many shares did he get? Find the amount of dividend (face value = 100 Rs.)
- 2) Find the simple interest on Rs. 40,000 at 12% p.a. for 3 year.
- 3) A person borrows Rs. 6000 for 3 years at 7% p.a. compound interest. Find the amount.

Q.3 Attempt any two of the following.

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- 1) Find the simple interest on Rs. 8000 at 4% p.a. for 9 months.
- 2) Two Companies have shares of Rs. 12% at 180 & 15% at 260 respectively which is better investment.
- 3) Find EMI on a loan of Rs. 3,00,000 is to be repaid in 4 years at 12% p.a. on the Outstanding amount at the beginning of each month. [Given $(1.01)^n = 1.6122$]

Q.4 Attempt any two of the following.

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- 1) Define the term statistics. Explain its scope in management science.
- 2) The following is the distribution of heights of students in a class Find --

Heights in cm	140 - 144	145 - 149	150 - 154	155 - 159	160 - 164
No. of students	10	15	35	28	12

- Find -
- i) Class marks of 2nd class
 - ii) Class boundaries of 4th class
 - iii) Class width of any class
 - iv) Frequency of 3rd class
 - v) Class limits of 5th class.
- 3) From the following frequency distribution find -
- i) Less than cumulative frequencies
 - ii) More than cumulative frequencies

Weights in kg	100 - 120	120 - 140	140 - 160	160 - 180	180 - 200
No. of person	15	24	43	12	1

Q.5 Attempt any two of the following.

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- 1) From the following information draw the histogram and find the mode graphically.

Marks obtained	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50
No. of students	7	19	33	21	10

- 2) Calculate the mean for the following data.

Rent in Rs.	1000	1500	2000	2500	3000
No. of tenant	5	15	20	10	5

- 3) Calculate the mean, median of the following data
315, 240, 160, 185, 200, 120, 80

Q.6 Attempt any two of the following.

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- 1) Calculate the mean for the following data.

Profit Percentage	0-5	5-10	10-15	15-20	20-25
No. of Companies	2	8	25	15	10

- 2) Calculate the median for the following data.

Income per day	100 - 200	200 - 300	300 - 400	400 - 500	500 - 600
No. of Workers	10	20	37	15	8

- 3) Explain the terms population and sample.