

S. B. B. Alias APPASAHEB JEDHE ARTS, COMMERCE & SCIENCE COLLEGE, PUNE 02.

TERM END EXAM - 2017 - 2018

SUBJECT :- BUSINESS MATHEMATICS & STATISTIC

F.Y. B.Com.

Time - 2 hrs.

Marks - 60

Q.1 A) Answer in following questions by selecting correct option from given options. (Any 6) 6

- 1) H.C.F. of 24 and 36 is
a) 6 b) 12 c) 72 d) 18
- 2) If $X^3 \times X^2 = X^a$ then a =
a) 5 b) 7 c) 6 d) 8
- 3) 25% of 100 is
a) 4 b) 25 c) 75 d) 10
- 4) The fourth proportion of 7, 8, 14, is
a) 15 b) 17 c) 16 d) 18
- 5) L.C. M. of 7 & 5 is
a) 35 b) 7 c) 5 d) none of these
- 6) { 1, 2, 3, 4 } is called a set of
a) natural number b) integers c) odd number d) even number
- 7) Ratio of two number is 2 : 3. The smaller number is 10, then the bigger number is
a) 14 b) 10 c) 15 d) 20
- 8) $\frac{2}{5} + \frac{3}{5} =$
a) $\frac{7}{5}$ b) $\frac{5}{5}$ c) $\frac{7}{2}$ d) $\frac{6}{25}$

B) Answer the following questions by selecting correct option from the given options (Any 3). 6

- 1) L.C.M. of 50, 80, 10 is
a) 40 b) 400 c) 100 d) 230
- 2) If A & B invested Rs. 50,000 & 40,000 in a business. If they realized a net profit of Rs. 3600, then A will get Rs.
a) 2000 b) 1000 c) 3000 d) none of these
- 3) $(X \div Y)^8 = X^8 \div$
a) y^5 b) y^2 c) y^8 d) y^1
- 4) 39% of is 195.
a) 400 b) 500 c) 300 d) 450

Q.2 Attempt any two of the following. 8

- 1) Two companies have share of Rs. 12% at 120 & 15% at 130 respectively, which is the better investment?
- 2) Find the simple interest on Rs. 10,000 at 5% p.a. for 5 year.
- 3) Find the compound interest on Rs. 30,000 at 10% p.a. for 3 year.

Q.3 Attempt any two of the following. 10

- 1) Find EMI on a loan of Rs. 1,00,000 is to be repaid in equal monthly installment. Interest is charged 12% p.a. on the loan outstanding at the beginning of each month is 5 years [Given $(1.01)^{60} = 1.8199$]

P.T.O.

- 2) At what rate of simple interest will be the sum of Rs. 7,000 becomes Rs. 9,000 in 4 years.
- 3) Rajesh holds 50 shares each of Rs. 100. If company declares 12% dividend find the dividend received by him?

Q.4 Attempt any two of the following.

10

- 1) Define population & Sample with example.
- 2) The following is the distribution of weight of student in the class.

Weights in Kg	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90
No. of students	5	15	28	24	17

Then find

- 1) Class marks of 3rd class
 - ii) Class limit of 4th class
 - iii) Class boundaries of class 80-90
 - iv) Frequency of first class
 - v) Class width of any class.
- 3) From the following frequency distribution -
Find i) Less than cumulative frequencies
ii) More than cumulative frequencies

Class	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50
Frequency	7	12	30	11	5

Q.5 Attempt any two of the following.

10

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

Income	0 - 100	100 - 200	200 - 300	300 - 400	400 - 500
No. of Workers	10	18	25	15	10

- 2) Calculate the mean & median for the following data.
50, 80, 25, 60, 15, 17, 33, 20, 10
- 3) Calculate the mean of the following data

Class	10	12	14	16	18	20
Frequency	2	4	6	8	4	2

Q.6 Attempt any two of the following.

10

- 1) Calculate the median for the following data.

Salary	500 - 1000	1000 - 1500	1500 - 2000	2000 - 2500
No. of Workers	12	30	55	40

- 2) Calculate the mean for the following data.

Marks	0 - 20	20 - 40	40 - 60	60 - 80	80 - 100
No. of Student	2	8	20	15	5

- 3) Explain the method of stratified sampling .

