Department of Mathematics

SHORT ANSWER TYPE QUESTIONS- 7 QUESTIONS. (2 Marks each)

Q.1	If 'n' varies as 'm' and n=49 when m=7. Find the value of n given m=12.
Q.2	If 32 men can reap a field in 15 days, in how many days can 20 men reap the same field?
Q.3	The fuel consumption of a vehicle is 6.8L for 102km. What distance can this vehicle cover in 24 liters of fuel?
Q.4	12 men can dig a pond in 8 days. How many men can dig it in 6 days?
Q.5	A hostel has enough food for 125 students for 16 days. How long will the food last if 75 more students join them?
Q.6	300 grams of strawberry cost ₹240. How much do 750 grams cost?
Q.7	Jane has painted a 40m^2 wall and she has used 8 pots of red paint. Tom wants to paint a 25m^2 wall. How many plots of paint does he need?

SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)

Q.8	Complete the table if x and y vary directly

x	3.5	4	7.5	-
y	-	8	-	32

Q.9	A train is moving at a uniform speed of 75 km/hour. (i) How far will it travel in 20 minutes? (ii) Find the time required to cover a distance of 250 km.
Q.10	An electric pole, 14 m high, casts a shadow of 10 m. Find the height of a tree that casts a shadow of 15 m under similar conditions also find the length of the shadow cast by the 63 m high building under similar conditions.
Q.11	A group of 3 friends staying together consume 54 kg of wheat every month. Some more friends join this group and find that the same amount of wheat lasts for 18 days. How many new members are there in this group?
Q.12	If the weight of 12 sheets of thick paper is 40 grams, how many sheets of the same paper would weigh $2\frac{1}{2}$ kilograms?

LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)

Q.13	In a Reality singing show, the prize money of ₹10,00,000 is to be divided equally amongst the winners. Complete the following table and find whether the prize money given to an individual winner is directly or inversely proportional to the number of winners.

No. of winners	1	2	4	5	-
Prize money to each winner	₹10,00,000	₹5,00,000	-	-	₹1,25,000

Q.14	The cost of 5 litres of milk is ₹ 55. Tabulate the cost of 2, 4, 10 and 20 litres of milk.

Q.15	P is directly proportional to Q². When P = 50, Q = 5 (i) Find a formula for P in terms of Q. (ii) Find the value of P when Q = 3 (iii) Find the value of Q when P = 200

Answers									
1	84	2	24 days	3	360 km	4	16 men	5	10 days
6	₹600	7	5 pots	8	7,15,16	9	i-25 km, ii 3h 20 min.	10	21 m, 45 m
11	6 more friends	12	750 sheets	13	₹2,50,000 ₹,200,000, 8 winners	14	22,44,110,220	15	k = 2 , P = kQ² P = 18.Q = 3. Q = 10 when P = 200.