

M. A. Examination, 2018
Rural Management
Semester-I
Paper – III (Group – A)
Subject: Basic Managerial Micro Economics

Time: 2 Hours

Full Marks: 40

Answer question No. 6 and any three from the rest

1. (a) What do you mean by the price elasticity of demand (E_p)? What are the types of E_p ?
(b) What are the assumptions behind the Law of Demand?
(c) Derive the demand schedule and the demand curve from the following demand function : $Q_d = 6000 - 100P$ 4+2+4=10

2. (a) State the Law of Diminishing Marginal Utility.
(b) Why the Law is very important in economics?
(c) Calculate Marginal Utility (MU) from the following Total Utility (TU) table and discuss the relationship between TU and MU. 3+3+4=10

Q_x	0	1	2	3	4	5	6	7
Tu_x	0	10	18	24	28	30	30	28

3. (a) Distinguish between Short-run Production Function and Long-run Production Function.
(b) Discuss the three stages of production with the following illustration. Also enumerate the relationships between TP, AP and MP. 3+7=10

Labour	0	1	2	3	4	5	6	7	8	9
TP	0	2	5	9	12	14	15	15	14	12

4. (a) Define TFC, TVC, AFC, AVC, AC and MC
(b) Calculate TC and then draw TFC, TC and TVC curves from the following information: 6+4=10

Q	0	1	2	3	4	5	6
TFC	60	60	60	60	60	60	60
TVC	0	30	40	45	55	75	120

P.T.O.

(2)

5.(a) What are the differences between a Perfect market and an Imperfect market?

(b) Establish Short-run equilibrium in a perfectly competitive market through the total approach with the following information. Price for one unit of Q is 4. $4 \times 6 = 10$

Q	0	1	2	3	4	5	6	7	7.5	8	9
TC	4	10	13	15	16	17	18.5	21	23	25	36

6. Write short notes on any four questions:

$2.5 \times 4 = 10$

- (a) Properties of Indifference curve.
 - (b) Positive and normative economics.
 - (c) Types of Returns to Scale
 - (d) Law of Supply
 - (e) Monopolistic market
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M. A. Examination, 2018
Rural Management
Semester-I
Paper – III (Group – B)
Subject: Quantitative Technique for Rural Management – I (Basic Statistics)

Time: 2 Hours

Full Marks: 40

Answer Question No. 6 and any *three* from the rest

1. a) Draw a line diagram of the following data related to patients treated in Bolpur BPHC of Birbhum district in the year of 2016 and 2017 respectively.

Year	Jan	Feb	Mar	April	May	Jun	July	Aug	Sep	Oct	Nov	Dec
2016	532	665	773	792	805	890	905	854	856	769	703	587
2017	594	628	646	723	769	815	861	721	695	633	580	525

b) Analyse the data on the basis of the diagram.

7+3=10

2. You are given below the income of some daily labourers in a small village. Frame a frequency distribution with class interval of Rs.10.

Income in Rs.								
210	213	244	244	227	217	298	236	230
227	224	273	251	212	242	203	258	246
240	221	262	231	255	233	204	248	220
260	270	209	249	286	295	251	282	242
229	254	238	278	241	277	215	257	207
265	236	267	241	255	222	269	267	234
245	239	225	226	275	257	253	237	259
219	252	256	232	281	240	247	238	262
276	228	292	246	246	235	216	242	278
268	247	237	235	247	243	266	256	248

10

3. Monthly savings of 227 SHGs are given below:

Savings(Rs.)	90-100	100-110	110-120	120-130	130-140	140-150	150-160
No. of SHGs	16	22	45	60	50	24	10

Calculate

- (a) Number of SHGs whose savings between Rs.112 and Rs.134.
- (b) Number of SHGs whose savings less than Rs.112. and
- (c) Number of SHGs whose savings greater than Rs.134.

$$5+2\frac{1}{2}+2\frac{1}{2}=10$$

P.T.O.

(2)

4. (a) Find the mean of the following distribution:

Age in years	15-19	20-24	25-29	30-34	35-34	45-59	Total
No. of persons	37	81	43	24	9	6	200

b) If $x_1, x_2, x_3, \dots, x_n$ have frequencies $f_1, f_2, f_3, \dots, f_n$ respectively, then prove that their A.M. denoted by the symbol : $\bar{x} = \frac{1}{N} \sum fx$

$$5+5=10$$

5. a) If $y_1, y_2, y_3, \dots, y_n$ represent the deviations of $x_1, x_2, x_3, \dots, x_n$ respectively from an arbitrary constant c , in units of another constant d , then

$$\text{If } x = c + dy \text{ then } \bar{x} = c + d\bar{y}$$

(b) Find the missing frequencies in the following distribution, when it is known that A.M.=11.09 and total frequency is 60.

Class Limit	9.3-9.7	9.8-10.2	10.3-10.7	10.8-11.2	11.3-11.7	11.8-12.2	12.3-12.7	12.8-13.2
Frequency	2	5	f_1	f_2	14	6	3	1

$$4+6=10$$

6. Write a short note on **any two** of the following:

$$2 \times 5 = 10$$

(a) Frequency Density

(b) Class Boundary

(c) Primary Data

(d) Class Mark
