

TKN/KS/16/12

**Bachelor of Commerce (B.Com.) Part-I (Old)**  
**Examination**  
**BASICS OF COMPUTER AND STATISTICAL**  
**TECHNIQUES**  
**Compulsory Paper-IV**

Time—Three Hours]

[Full Marks—100

- N.B. :—** (1) **ALL** questions are compulsory.  
(2) All questions carry equal marks.

**SECTION-A**

**(Basics of Computer)**

1. (a) Explain the meaning and characteristics of Computer.  
10  
(b) What is an Operating System ? Explain its functions.  
10

**OR**

- (c) Explain the advantages and disadvantages of Network.  
10  
(d) What do you mean by Software ? Explain its types.  
10

**SECTION-B**

**(Statistical Techniques)**

2. (a) Calculate Mean and Median from the following data :

Marks	No. of Students
5	20
10	43
15	75
20	67
25	72
30	45
35	39
40	9
45	8
50	6

$n = 384$  10

- (b) Compute Median and Mode from the following :

Size	Frequency
0-10	2
10-20	18
20-30	30
30-40	45
40-50	35
50-60	20
60-70	6
70-80	3

10

**OR**

- (c) Calculate Geometric Mean and Harmonic Mean from the following series :

No. of Items	Size
A	1238
B	178.7
C	89.8
D	78.4
E	9.7
F	0.874
G	0.989
H	0.012
I	0.008
J	0.0009

20

3. (a) Find out Standard Deviation and its co-efficient :

Wages in Rs.	No. of Workers
Not more than 10	12
Not more than 20	30
Not more than 30	65
Not more than 40	107
Not more than 50	157
Not more than 60	202
Not more than 70	222
Not more than 80	230

10

- (b) From the following data find out Karl Pearson's Co-efficient of Skewness :

Size	10	11	12	13	14	15
Frequency	2	4	10	8	5	1

10

**OR**

- (c) Calculate Co-efficient of Correlation for the following ages of husband and wife and its Probable error :

Age of Husband	Age of Wife
23	18
27	22
28	23
29	24
30	25
31	26
33	28
35	29
36	30
39	32

- 20
4. (a) The monthly incomes of Ram and Shyam are in the ratio of 6 : 7 and their monthly expenditures are in the ratio of 11 : 13. If each saves Rs. 400 per month, find their monthly incomes. 5
- (b) A machine costing Rs. 5,00,000 was sold for Rs. 3,00,000 after three years. Find out the percentage of Loss, if depreciation was being charged @ 10% on diminishing balance method. 5
- (c) A banker lent Rs. 12,000 to a person at a certain rate and Rs. 13,500 to another at 1% higher. If he gets Rs. 5640 as interest from both after 4 years, find the rates. 5
- (d) There is a profit of 20% if the article is sold at Rs. 1,800. What will be the gain percentage if the article is sold for Rs. 1,880 ? 5

**OR**

- (e) 'A', 'B' and 'C' are cricket players. Their ratio of runs A : B = 5 : 3 and B : C = 4 : 5. Their total runs were 329. Find out the runs of each player. 5
- (f) A dishonest fruit seller prefers to sell fruits at cost price but uses weight of 950 grams for 1 Kg. Find out the gain percentage. 5
- (g) What sum will amount to Rs. 48,620 in 4 years at 5% compound interest ? 5
- (h) If the manufacturer makes a profit of 20%, the wholesaler a profit of 25% and the retailer a profit of 40%, what was the cost of manufacturing of an article which is sold for Rs. 630 ? 5
5. (a) State the limitations of Statistics. 5
- (b) Find out Fisher's and Paasche's Index Number :  
 $\Sigma p_0 q_0 = 1656$  ;  $\Sigma p_0 q_1 = 1827$   
 $\Sigma p_1 q_1 = 2331$  ;  $\Sigma p_1 q_0 = 2124$  5
- (c) What are the various methods of measuring skewness ? 5
- (d) Calculate Range and Co-efficient of Range :  
 Daily Wages in Rs. : 50, 80, 20, 100, 408, 40, 65, 280, 60, 45. 5

(मराठी माध्यम)

सूचना :- (1) सर्व प्रश्न अनिवार्य आहेत.

(2) सर्व प्रश्नांना समान गुण आहेत.

विभाग—अ

(Basics of Computer)

1. (अ) संगणकाचा अर्थ आणि वैशिष्टे स्पष्ट करा. 10  
(ब) ऑपरेटिंग सिस्टीम म्हणजे काय ? तिचे कार्ये स्पष्ट करा. 10

किंवा

- (क) नेटवर्कचे फायदे व तोटे स्पष्ट करा. 10  
(ड) सॉफ्टवेअर पासून आपणास काय अर्धबोध होतो ? सॉफ्टवेअरचे प्रकार स्पष्ट करा. 10

विभाग—ब

(Statistical Techniques)

प्रश्न क्रमांक 2, 3 व 4 इंग्रजी माध्यमानुसार

5. (अ) सांख्यिकीच्या मर्यादा स्पष्ट करा. 5  
(ब) इंग्रजी माध्यमानुसार 5  
(क) विषमता मापनाच्या विविध पद्धती कोणत्या आहेत ? 5  
(ड) इंग्रजी माध्यमानुसार 5