

**Vidya Vikas Mandal's**  
**Shree Damodar College of Commerce & Economics, Margao-Goa**  
**FYBBA(FS), Semester-I (REPEAT), Semester End Assessment APRIL 2023**  
**BFS GEC1- Quantitative Skills**

Duration: 2hrs

Max Marks: 60

Instructions:

- 1) Start each question on fresh page.
- 2) Figures to the right indicate maximum marks.
- 3) Non-scientific, non-programmable calculators are allowed

Q1 Answer the following

[2x6=12 Marks]

- A. Simran lists down her monthly expenditure as follows. Draw a suitable diagram to represent the data:

Expenditure	Amount
Rent	4000
Food	5400
Clothing	2800
Savings	400

B.

Write the procedure of drawing:

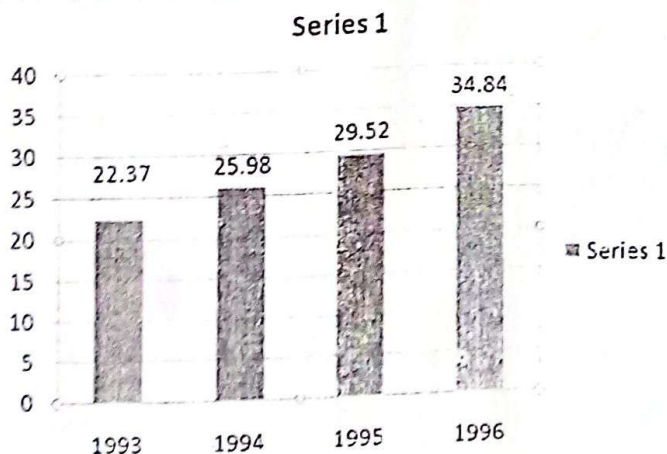
- i. a percentage bar diagram
- ii. less than and more than cumulative ogive

OR

Q1 Answer the following

[2x6=12 Marks]

X.



The above graph shows increase in wheat over years. Analyze this graph and answer the questions given below:

- Find the percentage increase in wheat grown in 1994 as compared to previous year
- Find the average wheat grown in all 4 years
- Calculate the increase in average growth of wheat from 1993 to 1995

Y. Prepare a cumulative distribution table for the following data:

State the number of workers are of age

- less than or equal to 40 years
- greater than or equal to 50 years

Age (in years)	No. of workers
20-25	3
25-30	9
30-35	15
35-40	25
40-45	23
45-50	12
50-55	10
55-60	3

Q2. Answer the following

[3x4=12 Marks]

- State whether the following lines have unique solution, no solution or infinite solutions. Justify your answer.  
 $3x-5y=4$  and  $-6x+10y=-8$
- Solve the following simultaneous equations by Elimination method  
 $13x-2y=17$  and  $5x+11y=-17$
- Aryan went to the bank to withdraw Rs 3000. He asked the cashier notes of Rs 100 and Rs 50. Aryan got all together 35 notes. Find how many notes of each type.

OR

Q2 Answer the following

[2x6=12 Marks]

- Find the roots of the following equations by quadratic formula method:
  - $10x^2+7x-6=0$
  - $5a^2-6a-8=0$
- Rs 480 is divided equally among some children. If the number of children were 20 more then each would have got Rs 12 less. Find the number of children.

Q3 Answer the following

[2x6=12 Marks]

- A. Sayed bought an i-phone on 12 monthly installments. He paid Rs 6000 as the first installment and thereafter for each installment she paid Rs 250 less than the previous month. If he paid Rs 3150 extra over the original price, then find the original price of the i-phone.
- B. Find  $n$  if  $7+11+15+19+\dots$  to  $n$  terms = 592

OR

Q3 Answer the following

[2x6=12 Marks]

- X. A company gets a contract of underground cabling of fiber optics. In the first month it covers total area of 50,000 sq.ft. second month the area covered increases by 10%. Third month area covered increases by 10% of second month and so on. Find the total area covered at the end of 1 year. Also find area covered in the 12<sup>th</sup> month.
- Y. Find the  $5+55+555+\dots$  to  $n$  terms. Hence find the sum when  $n=10$

Q4 Answer the following

[3x4=12 Marks]

- A. Monthly incomes of Sumya and Ramya are in the ratio 4:5 and their expenditure is in the ratio 7:9. If each saves Rs 4000 per month, find their monthly incomes and expenditure.
- B. Divide 1125 in the ratio 5:7 and 3:1
- C. Verify whether 4:5 and 8:10 are in proportion. Hence find the fourth proportional to 25, 130 and 5. Also find mean proportional between 50 and 80

OR

Q4 Answer the following

[2x6=12 Marks]

- X. Find the selling price of the following when 5% sales tax is added on the purchase of
- A towel of 50Rs
  - Two soap bars at Rs 35 each
  - 5kg of flour at Rs 15 per kg.
- Y. The selling price of 30 items = cost price of 25 items. Calculate the profit or loss %

Q5 Answer the following

[3x4=12 Marks]

- A. A bank gives offers for a short period, fixed deposits for 3 years under the following schemes:

i. At 8%, if the interest is calculated half yearly.

ii. At 10%, if simple interest is calculated.

State which scheme is more beneficial to the public.

B. On selling a mobile at 10% gain and a laptop at 20% gain, a digital shop gains Rs 4000. But if it sells the mobile at 20% gain and laptop at 10% loss, it gains Rs 3000 on the transaction. Find the actual prices of mobile and laptop.

C. Aachal saved Rs 8000 for the first month of her job and Rs 8400 in the next. Given that her savings are in AP.

i. Determine the amount she saved in the 18<sup>th</sup> month and in 20<sup>th</sup> month.

ii. Ratio of savings made in the 12<sup>th</sup> month and 16<sup>th</sup> month  
OR

Q5 Answer the following

[3x4=12 Marks]

X. The taxi charges in a city consists of a fixed charge together with the charge for the distance covered. For a distance of 10 km, the charge paid is Rs 105 and for a journey of 15 km, the charge paid is Rs 155. Find the fixed charge and the additional charge per km, also calculate the how much a person have to pay for travelling a distance of 30 km.

Y. In an AP, the first term is 8, nth term is 33 and the sum of first n terms is 123. Find n and the common difference.

Z. Find the time required for sum of money to amount to three times itself at 10% simple interest p.a.

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