



SN – 583

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I Semester B.Com. Examination, Nov./Dec. 2014
(New Syllabus) (Repeaters) (2012-13 and Onwards)
COMMERCE

1.6 (b) : Methods and Techniques for Business Decisions

Time : 3 Hours

Max. Marks : 100

Instruction : Answers should be **completely** in **English** or **Kannada**.

SECTION – A

1. Answer **any 10** questions. **Each** sub-question carries **2** marks. (10×2=20)
- What are real numbers ?
 - What is L.C.M. ?
 - What do you mean by Quadratic Equations ?
 - Solve for 'x'
 $2x^2 - 32 = 0$.
 - What is a sequence ?
 - What is square matrix ?
 - Mention any two properties of matrix addition.
 - What is simple interest ?
 - Find 200% of 30.
 - What is Banker's gain ?
 - Divide ₹ 800 between A and B in 1 : 3 ratio.
 - Find the 6th term of the sequence 3, 6, 12

SECTION – B

Answer **any four** questions. **Each** question carries **8** marks. (4×8=32)

2. Find the H.C.F. of 12 and 28 and then find their L.C.M.

3. Solve for 'x' : $\frac{x-3}{3} + \frac{x-5}{5} = \frac{x-8}{4}$.

4. If $A = \begin{bmatrix} 0 & 2 & 3 \\ 2 & 1 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 7 & 6 & 3 \\ 1 & 4 & 5 \end{bmatrix}$.

Find: (a) $2A + 4B$ (b) $5B - 3A$.

5. Find the simple interest on ₹ 15,300 for 3 years, 7 months and 73 days at the rate of 5% p.a.
6. Which term of the A.P. 7, 10, 13 is 160 ?

P.T.O.



SECTION – C

Answer any 3 questions. Each question carries 16 marks.

(3×16=48)

7. a) Solve by Elimination method

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$$3x + 4y = 14$$

$$5x + 7y = 24$$

b) Solve by formula method

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$$2x^2 - 7x + 3 = 0$$

8. a) If $A = \begin{bmatrix} 4 & 2 \\ 6 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 8 & 4 \\ 6 & 2 \end{bmatrix}$ show $(AB)' = B'A'$.

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b) Solve by Cramer's Rule

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$$3x + 5y = 8$$

$$6x + 5y = 11$$

9. a) A bill for ₹ 42,000 was drawn on 1-4-2014 at 6 months date. It was discounted on 11-5-2014 at 12% per year. Calculate

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i) Banker's discount

ii) Present worth

iii) True discount

iv) Banker's gain.

b) Solve $x + \frac{1}{x} = 2\frac{9}{10}$.

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10. a) Given :

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Debtors	₹ 50,000	Cash	₹ 5,000
Inventory	₹ 75,000	Creditors	₹ 55,000
B/R	₹ 30,000	Short term loans	₹ 25,000

Calculate :

i) Current Ratio

ii) Liquid Ratio

iii) Absolute Liquid Ratio

b) The 2nd term of a geometric progression is 16 and the 5th term is 128. Find the 9th term.

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