

**Model Paper “Business Mathematics”  
For Bridge Courses of Foundation Diploma of ACCA  
Annual Examination 2017 & Onward**

**Objective  
Part-A**

Roll No: \_\_\_\_\_

**Time: 30 Minutes**

**Total Marks: 20**

**Note: This part is compulsory. It should be attempted on the question paper and returned to the supervisory staff after the prescribed time. Cutting, overwriting and use of lead pencil are not allowed. Supervisory staff is required to attach it with the answer book.**

**Q.1 Each statement has more than one choice. Select the correct answer from these and encircle it. 20x1=20**

- i.** Binary number system is base on  
a. 0,1                      b. 0,2                      c. 0,3                      d. 0,4
- ii.** Number system use in computer  
a. Decimal                  b. Binary                      c. Octal                      d. None of above
- iii.** Convert  $(7)_{10}$  to its Equivalent number with binary system is  
a.  $(III)_2$                   b.  $(IOI)_2$                   c.  $(OII)_2$                   d. None of above
- iv.** Rectangular arrangement of numbers and symbols belonging to situation is called  
a. Determinant          b. Matrix                      c. Equation                  d. Formula
- v.** A matrix comprising all zero entries is  
a. Unit                      b. Null                          c. Row                          d. Column
- vi.**  $6x=180$  Value of x is  
a. 180                      b. 30                              c. 174                          d. None of above
- vii.** When the Principal remains same if interest is  
a. Simple                  b. Compound                  c. None of Above          d. All of above
- viii.** If number of columns and rows are equal then matrix is  
a. Singular                  b. Square                      c. Null                          d. Unit
- ix.** The ratio between 3 days and 40 hours  
a. 9:5                          b. 5:9                          c. 4:9                          d. 5:4
- x.**  $X^0$  is equal  
a. 1                              b. 0                              c. 2                              d. 3
- xi.** Ratio between 80:640 is  
a. 1:4                          b. 2:4                              c. 1:8                          d. 4:16
- xii.** If  $2:7::x:49$   
a. 9                              b. 7                              c. 14                              d. 52
- xiii.**  $\begin{vmatrix} 2x & 4 \\ 6 & 2 \end{vmatrix}$  is a singular matrix then x is  
a. 2                              b. 4                              c. 6                              d. 12
- xiv.** Commission is  
a. Remuneration          b. Wages                      c. Salaries                      d. None of above
- xv.** Discount means  
a. Increase sale price      b. Decrease sale price      c. All of above                  d. None of above
- xvi.** Types of proportion are  
a. 2                              b. 3                              c. 4                              d. 6
- xvii.** Cost is Rs/- 500 and loss 5% selling price is  
a. Rs/- 25                  b. Rs/- 400                  c. Rs/- 475                  d. None of these
- xviii.** 25% of Rs/- 500 is  
a. Rs/-125                  b. Rs/- 150                  c. Rs/- 200                  d. Rs/- 250
- xix.** Compound interest is  
a. Same simple interest      b. Different simple interest  
c. May or may not simple interest      d. All of above
- xx.** 5 in binary number system is  
a.  $(IO)_2$                   b.  $(IOI)_2$                   c.  $(II)_2$                       d. None of above

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**SUBJECTIVE**

**Part-B**

Time: 02:30 Hours

Total Marks: 80

**Section-I**

Short Questions

08x5=40

**Q.2 Attempt any eight (08) from the following questions.**

- i. Convert 1942 in binary number
- ii. Find the determinant of  $A = \begin{vmatrix} 4 & 9 \\ 7 & 6 \end{vmatrix}$
- iii. Find value of x if  $4x-3=2x+7$
- iv. Define with example matrix
- v. Define ratio with example
- vi. Define compound interest with formula
- vii. Define Profit
- viii. Give formula for annuity
- ix. Divide Rs/- 60,000 in the ratio of 5:7
- x. Define principal amount
- xi. Define percentage with formula
- xii. Explain and define commission
- xiii. Explain the types of proportion
- xiv. Explain the formula of inverse of A
- xv. Define and explain binary number system

**Section-II**

Long Questions

10x4=40

**Q.3 Attempt any Four (04) from the given questions.**

- i. Solve the system of Equation  
 $4x + 5y = 40$   
 $3x + 2y = 23$
- ii. Find two consecutive integers whose sum is 99
- iii. A table cost Rs/- 600 and sold for Rs/- 555, Find percentage loss
- iv. Find  $A^{-1}$  whereas,  
 $A = \begin{pmatrix} -1 & -2 \\ 3 & 4 \end{pmatrix}$
- v. Solve equations by factorization  
 $X^2 + 10x = 8(2x-1)$
- vi. An agent earned Rs/- 27,000 at the rate of 4% for sale what was the sale price
- vii. A jewelry set was sold for Rs/- 50,400 on 16% loss, Find cost price of each set