

Cutting, Overwriting, Erasing, Fluid painting and use of Lead Pencil will earn no marks.
 Write answer of the Question No.1 and 2 on this sheet and handover it to the supervisory staff of examination within first 35 minutes.

Time Allowed: 35 Minutes

(OBJECTIVE PART)

Max. Marks: 16

**Sign of
 Supdt.**

1- a) Encircle the correct answer:

1x4

i) Which of the following is invalid real constant?

- a) 152E08 b) 152*.E8 c) 17.405 d) -152E08

ii) In FORTRAN, if a and b are two integers and a = 4, b = 3 then a/b =

- a) 1 b) 1.3333 c) 0 d) None of these

iii) If the length of square is p Cm, then perimeter of square (in FORTRAN) is defined by

- a) 4p cm b) 4p c) 4*p d) None of these

iv) Which of the following is a low level language?

- a) C++ b) FORTRON c) BASIC d) ASSEMBLY

b) Encircle True or False:

1x3

- i) The value of loop parameters init, find, iner should not be changed inside the DO LOOP. **TRUE / FALSE**
- ii) REAL :: Area, Mass, 1 rarious is valid. **TRUE / FALSE**
- iii) If i = 0.00042 then the output of
 PRINT 10, I
 10 Format (E8.2) is 0.42E-03 **TRUE / FALSE**

c) Fill in the blanks meaningfully:

1x4

- i) Fortran is an abbreviation for _____.
- ii) MATMUL function is used in Fortran to find _____.
- iii) The output of a**b + c with a = 2; b = 4; c = 1 is _____.

2- Give short answers of the following questions:

1x6

- i) Differentiate between Real and Integer Constant in FORTRAN.

- ii) Locate Syntax Error in the following
 FORTRAN Code
 DO J = 1, 10
 PRINT*,J
 DO J = 1, 5
 PRINT*,J**2
 END DO
 END DO

(Continued Overleaf)

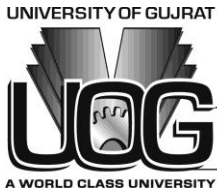
iii) Trace through the following program and predict the output.

```
DO  J = 1, 9, 2
  K= J**2
End DO
  PRINT*,J
END
```

iv) Define Array

v) Give an example of IF Statement.

vi) Define INTRINSIC FUNCTION with help of example.



(M.A/M.Sc Part-II)

Roll No: _____

(Mathematics) Computer ApplicationsTime Allowed : 2:25 hrs
Max. Marks : 34Attempt **FOUR** Questions in all. Select **TWO** Questions from **Section-A** and **TWO** Questions from **Section-B**. All Questions carry equal marks.**SUBJECTIVE PART****SECTION-I**

- 3- a) Explain LOW LEVEL LANGUAGE. Give at least Two names of Low Level Languages.
Also briefly discuss the uses of one of them. 4
- b) Write a program to find the volume of cylinder when radius of the circle and height is given. 4
- 4- a) Write a program to find the AM, HM and GM between the two numbers; also find the greatest among the three means. 5
- b) Draw the flow chart of the problem given in 4(a). 3
- 5- a) Write a program to find the Arithmetic Operations on two integers.
Also draw the flow chart of the program. 4
- b) Write a program to find the area of a triangle whose sides a, b, c are given such that $S = \frac{a+b+c}{2}$ and
Area = $\sqrt{s(s-a)(s-b)(s-c)}$ 4

SECTION-II

- 6- Write a program to find the solution correct up to three decimal places of the following system of equations: 9
- $$\begin{aligned} 11x + 2y - z &= 15 \\ x - 10y + 2z &= 16 \\ 2x + 3y + 8z &= 1 \end{aligned}$$
- using Jacobi Iteration Method.
- 7- Write a program to find the value of integral $\int_{0.1}^{0.7} \frac{dx}{x}$. Using Trapezoidal Rule for n = 8. 9
- 8- Write a program to find the real root of $x \log_{10} x - 2 = 0$. Using Bisection Method. 9