

NAME.....

ROLL NO.....

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-2008

**I B.TECH SUPPLEMENTARY EXAMINATIONS
INFORMATION TECHNOLOGY AND NUMERICAL METHODS
(B.TECH ALL BRANCH)**

AUG/SEP -2008

TIME-3 HOUR
MARK-80

ANSWER ANY FIVE QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

1. (a) What are the prime responsibilities of output devices? List and explain them in brief.
(b) Describe the role and importance of memory unit in a computer.
2. Write a brief notes on the following:
 - (a) Multi-processing operating system
 - (b) Time sharing system
 - (c) Multi tasking OS
 - (d) Batch Processing.
3. (a) What is meant by 'portability' in computer languages.
(b) Distinguish between third generation and fourth generation languages.
4. (a) What is teleconference? What is videoconferencing?
(b) Explain: bridge, routes, gateway.
5. Describe the Standard Toolbar of Office - 2000.
6. (a) Explain the iterative method approach in solving the problems.
(b) Explain the classification of iterative method based on the number of guesses.
7. Find the interpolation polynomial for $x = 3.2, 2.7, 1.0, 4.8, 5.6$, $f(x) = 22, 17.8, 14.2, 38.3, 51.7$, using difference tables and thus find $f(3)$.
8. (a) Derive an expression for the truncation error in Taylor Series (Single Step Method) method.
(b) Given $y''' + 2y'' + y' - y = \cos(x)$ $y(0) = 0$, $y'(0) = 1$, $y''(0) = 2$ Compute $y(1)$, $y'(1)$, $y''(1)$ using Taylor Series Solution with $h = 1$.