

Code No: R07A1EC10

R07**Set No. 2**

I B.Tech Examinations, December 2010
COMPUTER PROGRAMMING AND NUMERICAL METHODS
Metallurgy And Material Technology

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
 All Questions carry equal marks

1. (a) Solve the equation $x \tan x = -1$ by Regula Falsi method starting with $a = 2.5$ and $b = 3$ correct to 3 decimal places.
 (b) Find a positive root of the equation by iteration method: $2x = 3 + \cos x$. [8+8]
2. (a) What are the differences between algorithm & flowchart?
 (b) Write briefly about C tokens. [8+8]
3. (a) Compute $\int_0^4 \frac{dx}{1+x^2}$ by using Simpson's one-third rule with 6 subdivisions.
 (b) Using Milne's method to find $y(4.4)$ given that $5xy + y^2 - 2 = 0$ given $y(4) = 1$, $y(4.1) = 1.0049$, $y(4.2) = 1.0097$, $y(4.3) = 1.0043$. [8+8]
4. (a) Define function as an argument.
 (b) Define parameter passing methods with examples? [8+8]
5. (a) Find the value of $\sec 34^\circ$ given the following data

$\theta:$	31°	32°	33°	34°
$\tan \theta:$	0.6008	0.6249	0.6494	0.6745

 (b) Interpolate y at $x = 5$ from the following data [8+8]

X	1	2	3	4	7
Y	2	4	8	16	128
6. (a) How can a entire structure be passed to a function?
 (b) How can a entire structure be returned from a function? [8+8]
7. Explain need of pointers and its advantage. [16]
8. Write a program to convert an postfix expression to infix. [16]

Code No: R07A1EC10

R07**Set No. 4**

I B.Tech Examinations, December 2010
COMPUTER PROGRAMMING AND NUMERICAL METHODS
Metallurgy And Material Technology

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
 All Questions carry equal marks

1. (a) What are the differences between algorithm & flowchart?
 (b) Write briefly about C tokens. [8+8]
2. (a) Find the value of $\sec 34^\circ$ given the following data

$\theta:$	31°	32°	33°	34°
$\tan \theta:$	0.6008	0.6249	0.6494	0.6745

 (b) Interpolate y at $x = 5$ from the following data [8+8]

X	1	2	3	4	7
Y	2	4	8	16	128
3. (a) Compute $\int_0^4 \frac{dx}{1+x^2}$ by using Simpson's one-third rule with 6 subdivisions.
 (b) Using Milne's method to find $y(4.4)$ given that $5xy+y^2-2=0$ given $y(4) = 1$,
 $y(4.1) = 1.0049$, $y(4.2) = 1.0097$, $y(4.3) = 1.0043$. [8+8]
4. Explain need of pointers and its advantage. [16]
5. Write a program to convert an postfix expression to infix. [16]
6. (a) Define function as an argument.
 (b) Define parameter passing methods with examples? [8+8]
7. (a) Solve the equation $x \tan x = -1$ by Regula Falsi method starting with $a = 2.5$
 and $b = 3$ correct to 3 decimal places.
 (b) Find a positive root of the equation by iteration method: $2x = 3 + \cos x$. [8+8]
8. (a) How can a entire structure be passed to a function?
 (b) How can a entire structure be returned from a function? [8+8]

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R07**Set No. 1**

I B.Tech Examinations, December 2010
COMPUTER PROGRAMMING AND NUMERICAL METHODS
Metallurgy And Material Technology

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
 All Questions carry equal marks

1. Explain need of pointers and its advantage. [16]
2. Write a program to convert an postfix expression to infix. [16]
3. (a) Solve the equation $x \tan x = -1$ by Regula Falsi method starting with $a = 2.5$ and $b = 3$ correct to 3 decimal places.
 (b) Find a positive root of the equation by iteration method: $2x = 3 + \cos x$. [8+8]
4. (a) What are the differences between algorithm & flowchart?
 (b) Write briefly about C tokens. [8+8]
5. (a) Define function as an argument.
 (b) Define parameter passing methods with examples? [8+8]
6. (a) Compute $\int_0^4 \frac{dx}{1+x^2}$ by using Simpson's one-third rule with 6 subdivisions.
 (b) Using Milne's method to find $y(4.4)$ given that $5xy + y^2 - 2 = 0$ given $y(4) = 1$, $y(4.1) = 1.0049$, $y(4.2) = 1.0097$, $y(4.3) = 1.0043$. [8+8]
7. (a) How can a entire structure be passed to a function?
 (b) How can a entire structure be returned from a function? [8+8]
8. (a) Find the value of $\sec 34^\circ$ given the following data

$\theta:$	31°	32°	33°	34°
$\tan \theta:$	0.6008	0.6249	0.6494	0.6745

 (b) Interpolate y at $x = 5$ from the following data [8+8]

X	1	2	3	4	7
Y	2	4	8	16	128

Code No: R07A1EC10

R07**Set No. 3**

I B.Tech Examinations, December 2010
COMPUTER PROGRAMMING AND NUMERICAL METHODS
Metallurgy And Material Technology

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
 All Questions carry equal marks

1. (a) Find the value of
- $\sec 34^\circ$
- given the following data

$\theta:$	31°	32°	33°	34°
$\tan \theta:$	0.6008	0.6249	0.6494	0.6745

- (b) Interpolate
- y
- at
- $x = 5$
- from the following data [8+8]

X	1	2	3	4	7
Y	2	4	8	16	128

2. (a) Define function as an argument.
 (b) Define parameter passing methods with examples? [8+8]
3. (a) Solve the equation $x \tan x = -1$ by Regula Falsi method starting with $a = 2.5$ and $b = 3$ correct to 3 decimal places.
 (b) Find a positive root of the equation by iteration method: $2x = 3 + \cos x$. [8+8]
4. Write a program to convert an postfix expression to infix. [16]
5. (a) Compute $\int_0^4 \frac{dx}{1+x^2}$ by using Simpson's one-third rule with 6 subdivisions.
 (b) Using Milne's method to find $y(4.4)$ given that $5xy + y^2 - 2 = 0$ given $y(4) = 1$, $y(4.1) = 1.0049$, $y(4.2) = 1.0097$, $y(4.3) = 1.0043$. [8+8]
6. Explain need of pointers and its advantage. [16]
7. (a) How can a entire structure be passed to a function?
 (b) How can a entire structure be returned from a function? [8+8]
8. (a) What are the differences between algorithm & flowchart?
 (b) Write briefly about C tokens. [8+8]
