



RN-7441

B. E. - IV (Sem. VII) (I.T.) Examination

May / June - 2010

Graphical User Interface

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशविवेक निशान्चीवाणी विगतो उत्तरवडी पर अवश्य लपवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
B. E. - 4 (Sem. 7) (IT)

Name of the Subject :
Graphical User Interface

Subject Code No. : 7 4 4 1 Section No. (1, 2,.....): 1&2

Seat No. :

Student's Signature

- (2) Answer to each section must be written in separate answer books.
(3) Figures to extreme right indicate maximum marks.
(4) Make necessary assumptions, if required.

SECTION - I

Q-1

(A) Answer the following.

[10]

- (1) Give the functionality of ON_COMMAND_RANGE().
- (2) What do you mean by callback function ?
- (3) State the usefulness of static control in dialog box.
- (4) "Updates and enhancements to Windows can be accomplished by changing the DLL routines." State True or False.
- (5) _____ function converts a point, in the current device coordinates into logical coordinates.
- (6) State True or False.
"WM_ERASEBKGND message is received before the WM_PAINT message."
- (7) "LoadIcon() MFC function is normally used to load standard or built-in icons in MFC." Correct this statement if incorrect.
- (8) Enlist any two MFC classes which are not derived from CObject MFC class.
- (9) Can you update or modify the size or position of any control in dialog box outside of VC++ editor ? if yes how ?
- (10) Which MFC function tells Windows that the window is invalid and must be redrawn ?

- (B)**
- (1) Check for validity for the following message macro. If valid then give its functionality with respect to VC++ 6.0 [04]
- (a) ON_WM_PAINTING
 - (b) ON_WM_MBUTTONDOWN
 - (c) ON_WM_CHARACTER
 - (d) ON_WM_CLOSE
- (2) Justify the following statements with proper illustration. [06]
- (a) MFC offers the convenience of reusable code.
 - (b) Radio buttons are mutually exclusive check boxes.

Q-2

- (A) What do you mean by bitmap, icon and cursor ? Write and explain the steps to handle and to display two different bitmaps on two different events or messages in VC++ application. [08]
- (B) List out and describe main and frequently-used MFC classes in VC++ 6.0. Also list out with examples the functions provided by CString, CTime, CPaintDC and CRect MFC classes [07]

OR

- (A)
- (i) What is the mechanism of handling WM_COMMAND message ? [04]
 - (ii) How do you create a menu using Resource Editor ? [04]
- (B) How can you implement Doc/View Architecture based simple SDI(single document interface) like application ? Explain the sequence of steps for such application and if required, also mention MFC functions and their functionality in this application. [07]

Q-3

- (A) Attempt any two. [12]
- (1) What steps should you follow to get your first MFC skeleton application ?
 - (2) Which steps must be performed by your MFC program in order to respond to a message ? Explain each steps in details with required MFC functions and code.
 - (3) Define and explain the following terms.
 - (a) Message Map
 - (b) API
 - (c) resources
 - (d) device context
- (B) Discuss repaint problem and its proposed solution. [03]

SECTION - II

Q:4

- (a) **Attempt the following questions:** (10)
- (i) List out common Non Visual mistakes while designing an interface.
 - (ii) What is the use of Compound Document Container in the Object Linking and Embedding?
 - (iii) Write down the minimum system requirement for Windows 1.0.
 - (iv) What is the purpose of OLE Server?
 - (v) What is TLS?
 - (vi) Define COM Interface.
 - (vii) DDE conversation is initiated by _____ program.
 - (viii) _____ and _____ are light receptors in eyes.

State the following True or False:

- (ix) For low resolution screen Serif fonts are easier to read.
 - (x) "Windows 95 "is two-dimension presentation of shallow, three-dimensional world.
- (b) Explain the following terms: (04)
- (i) Jaggies.
 - (ii) The Light Box Effect
- (c) Write down the steps for Transferring and Retrieving text to and from the Clipboard. (04)

Q:5

Attempt the following questions: (Any Four) (16)

- (1) Explain Non-Preemptive and Preemptive multitasking
- (2) Explain types of the conversation carried out in Dynamic Data Exchange.
- (3) Explain Registry.
- (4) Explain goals of good interface design.
- (5) Explain Rat's Eye View Vs. Bird's Eye View.

Q:6

Answer the following:

- (a) Which Design Techniques are used to achieve visual effects? (08)
- OR**
- (a) Write down a short note on Perceptual Effects of Color. (08)
- (b) Give the fundamental principle of design when applied to software interfaces. (06)
- (c) Give the difference between "classical style design" and "flashier style design". (02)