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RN-7361

B. E. IV (Sem. VII) (Computer) Examination
May / June - 2010
User Interface

Time : 3 Hours]

[Total Marks : 100

Instruction :

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of signs on your answer book.

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

Name of the Subject :
User Interface

Subject Code No. : 7 3 6 1 Section No. (1, 2,.....) : 1&2

Seat No. :
[] [] [] [] [] []

Student's Signature

SECTION - I

- 1 (a) Attempt the following : 10
- (1) _____ function uses global application object to initialize the parameters passed to it, to data members of CW in App class.
 - (2) The process of managing mouse messages even when the cursor goes out of the client area is known as _____.
 - (3) Successful compilation of rc file produces file with _____ extension.
 - (4) MFC global function names are prefixed with _____.
 - (5) m_pMainWnd is member variable of _____ class.
 - (6) _____ macro converts the ID of the resource from number to string.
 - (7) Every COM interface is identified by _____ attribute.
 - (8) Object of _____ class must be defined globally so that it gets created before the execution begins.
 - (9) API DLL's are normally found in _____ directory.
 - (10) For a class to support serialization, it must be derived from _____.

- (b) Name the message which gets manufactured by windows OS : 5
 (1) When left mouse button is pressed in the non-client area.
 (2) When user clicks on an item from system menu.
 (3) When user closes a window.
 (4) When a pop-up menu is activated.
 (5) Just after construction of Dialog Box, but before displaying it.
- (c) "To understand ActiveX is to understand OLE and vice versa". Justify. 5
- 2** (a) What do you understand by device context and GDI ? 8
 How are these two terms related ? How can we save and restore device context with proper illustration ? Enlist and explain various device context classes.
- (b) If the same function is to be called on selecting one of the three items in a menu, is it necessary to write three ON_COMMAND entries in the message map ? What are accelerators and hot keys and how they can be used in windows program ? 7
- OR**
- 2** (a) What is your perception about messages in terms of windows programming ? Discuss the role played by messages, message macros and message map so far as windows programming is concerned. What are the two parameters of BEGIN_MESSAGE_MAP() ? How many message maps can a windows program have ? Justify. 8
- (b) How does Doc/View architecture differ from application/window framework. What is document ? What is view ? "The mapping of document to view is one to many." Justify. 7
- 3** (a) Attempt any **three** : 15
 (1) How is DOS based programming different than windows based programming ?
 (2) Explain with flowchart how a typical windows program works.
 (3) Differentiate Model and Modeless Dialog Box.
 (4) What is the need to generate WM_PAINT message ? How can an application cause windows to send WM_PAINT message ?
 (5) Explain in brief :
 (a) Event (b) Message Loop
 (c) Queued Message (d) Window procedure
 (e) API.

SECTION – II

- 4 (a) Attempt of the following questions : 10
- (1) In Doc/View architecture which class translates mouse and keyboard messages ?
 - (a) CWinApp
 - (b) CFrameWnd
 - (c) The class you derive from CFrameWnd
 - (d) CView.
 - (2) Explain the role of designer and engineer in an interface.
 - (3) InitInstance () is a member of which class ?
 - (4) What is meant by Jaggies ?
 - (5) What is Icon ? Advantages of Icon.
 - (6) Which of the following objects cannot be used for synchronization of threads across process boundary ?
 - (a) Semaphore
 - (b) Mutex
 - (c) Event
 - (d) Critical section.
 - (7) Explain visual inconsistency and overbearing metaphors.
 - (8) What do you mean by movable memory ?
 - (9) How many maximum rows and columns can a static splitter window contain ?
 - (10) Which of the following is not a resource :
 - (a) Accelerator table
 - (b) Bitmap
 - (c) Toolbar
 - (d) File.
- (b) Explain general graphic design principles. 6
- (c) Discuss any four graphic design methods. 4
- 5 (a) Discuss in detail graphic design tools and techniques. 8
- (b) Differentiate between the terms : 7
Realism Vs. Abstract
Rat's Eye View Vs. Bird's Eye View.
- 6 (a) Discuss in detail DDE with its various conversations. 8
- (b) Explain the working model of DLL with neat diagrams. 7
- OR**
- 6 (a) What is pre-emptive and non-preemptive multitasking ? Explain in detail. 8
- (b) Describe the common errors in visual interface design. 7