"QUESTION PAPER MUST BE ATTACHED ALONGWITH THE ANSWER BOOK."

November, 2012 SPECIALIZED DIPLOMA EXAMINATION (CASUALTY ACTUARIAL SCIENCE-NON-LIFE) ESTIMATING UNPAID CLAIMS USING BASIC TECHNIQUES

[Reg. No.]

[Time : 3 Hours] [Total Marks: 100]

Answer EIGHT questions only. Question number TEN is compulsory which carries 16 marks.
Any SEVEN question from Q.No.1 to Q.No.9 which carries 12 marks each.

Q.1 Answer any three of the following:-
   a) What are the elements comprising the total unpaid claim estimate?
   b) Define ultimate claim & its three components.
   c) What are the common uses of the Expected Claims Methods?
   d) Explain Long Tail & Short-Tail line of business.

Q.2 Write short notes on any three of the following:
   a) Claim Reserve
   b) Collision
   c) Crime Insurance
   d) Reinsurance & aggregate limits

Q.3. Write a short note on any three of the following:
   a) Mechanics of expected claims technique
   b) Recoveries
   c) Exposure
   d) Salvage and Subrogation

Q.4. Discuss any two of the following:
   a) Mechanics of the Berquist - Sherman Case Outstanding Adjustment.
   b) State key Assumptions of:
      i) Expected Claims Method ii) Cope Cod Method
   c) Suitability of the Case Outstanding Development Technique.

Q.5 Explain, with examples, any two of the following:
   a) Claim-related Expenses
   b) Multiple Currencies Claims
   c) Recoveries

Q.6. Answer any two of the following:
   a) Describe Mechanics of Bornhuetter Ferguson Method.
   b) What are the common uses of Expected Claims Method? List any two difficulties faced while using this method.
   c) What is the suitability of the Cape Cod Technique?
Q.7.  
   a) What are the key assumptions when applying Bornhutetter - Ferguson Method?  
   b) List the different types of claim transactions over the life of the claim.  

Q.8.  
What characteristic's should be reviewed by Actuaries while selecting claim development factors?  

Q.9.  
Describe in detail the frequency severity technique for projecting Unpaid Claims using any one of the approaches.  

Q.10. Given are the Reported Claims of a General Insurance Company:  

<table>
<thead>
<tr>
<th>Accident Year</th>
<th>Reported Claims as of (Months)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
</tr>
<tr>
<td>2001</td>
<td>1,539</td>
</tr>
<tr>
<td>2002</td>
<td>2,318</td>
</tr>
<tr>
<td>2003</td>
<td>1,743</td>
</tr>
<tr>
<td>2004</td>
<td>2,221</td>
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<tr>
<td>2005</td>
<td>3,043</td>
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<td>2006</td>
<td>3,531</td>
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<tr>
<td>2007</td>
<td>3,529</td>
</tr>
<tr>
<td>2008</td>
<td>3,409</td>
</tr>
</tbody>
</table>

i) Calculate Airthmetic, Medial , Volume - Weighted and Geometric Average Age-to-Age Factors.  
ii) Develop selected Age-to-Age Factors by using Development Method.