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|  | E:\Blank format\AJU LOGO.jpg | **1ST INTERNAL EXAMINATION** |
| Program Name | **BACHELOR OF PHARMACY** | Program Code | **B.PHARM** |
| Course Name | **REMEDIAL Mathematics** | Semester | **I** |
| Course Code | **-------** | Year | **2023/ODD** |
| Time: 1 Hours | **Answer Any ONE of Section A Answer Any FOUR of Section B** | Maximum Marks | **30** |
| Knowledge Level (KL) | **K1 :** Remembering | **K3 :** Applying | **K5 :** Evaluating |
| **K2 :** Understanding | **K4 :** Analysing | **K6 :** Creating |
| **Section A** **Answer any one out of two [1 x 10 = 10 Marks]** |
| **Q. No.** | **Questions** | **Marks** | **COs** | **KL** | **PO** |
| **1(i)** | Express the Matrix A=$\left[\begin{matrix}1&2&3\\4&5&6\\3&-1&2\end{matrix}\right]$ as sum of symmetric and skew symmetric matrices. | **10** | **CO1** | **K2** | **PO2** |
| **1(ii)** | If A=$\left[\begin{matrix}5& 4&-2\\4& 5&-2\\-2&-2&2\end{matrix}\right]$ then prove that A2-2A+10I=0 | **10** | **CO2** | **K2** | **PO2** |
| **Section B****Answer any FOUR out of SIX [4 x 5 = 20 Marks]** |
| **Q. No.** | **Questions** | **Marks** | **COs** | **KL** | **PO** |
| **1** | Construct the matrix A of the order 3x3 having elements $a\_{ij}$= $(2i-1)^{i+j}$. | **05** | **CO2** | **K5** | **PO1** |
| **2** | If A=$\left[\begin{matrix} 0& 4& 3\\ 1&-3&-3\\-1& 4& 4\end{matrix}\right]$ Then prove that A2=$I\_{3}$. | **05** | **CO2** | **K3** | **PO2** |
| **3** | Find the symmetric and skew symmetric matrices of Square matrix A=$\left[\begin{matrix}1&2&1\\2&5&1\\3&1&1\end{matrix}\right]$. | **05** | **CO1** | **K2** | **PO2** |
| **4** | Define Symmetric and Skew Symmetric matrix with Example? | **05** | **CO3** | **K2** | **PO2** |
| **5** | If $\left|\begin{matrix}2x&5\\8&x\end{matrix}\right|=\left|\begin{matrix}6&-2\\7&3\end{matrix}\right|$ then find the value of x. | **05** | **CO2** | **K5** | **PO1** |
| **6** | Solve $∆$= $\left|\begin{matrix}1&x&x^{2}\\1&y&y^{2}\\1&z&z^{2}\end{matrix}\right|$. | **05** | **CO2** | **K5** | **PO1** |

CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome

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| Course Outcomes | CO1 | Analyze the logic of a given problem |
| CO2 | Use branching control statements and iterative control statements using C++. |
| CO3 | Demonstrate the concepts of Reusability through the use of functions, Inheritance & Polymorphism |
| CO4 | Analyze the problem statement and decide the logic to solve the problem using C++ Programming. |



