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| **University of Kerala** | | |
| Discipline | : | MUSIC |
| Course Code | : | **UK1MDCMUS102** |
| Course Title | : | Music & Science |
| Type of Course | : | MDC |
| Semester | : | 1 |
| Academic Level | : | 100-199 |
| Total Credit | : | 3 (Theory: 3 Credit) |
| Name & Designation of Faculty | **:** | Dr. Shyama.K.R, Assistant Professor, Department of Music |
| College | **:** | Government College for Women, Tvpm |

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| **Qn.**  **No.** | **Module** | **Cognitive Level** | **Part in Question Paper A/B/C/D** | **Marks** | **Reference Material** | **Course Outcome (CO)** |
| 1 | 1 | Remember | A | 1 | South Indian Music – Vol 1, Prof P Sambamoorthy | CO1 |
| What are the two types of Nada? | | | | | | |
| 2 | 2 | Remember | A | 1 | South Indian Music – Vol 2, Prof P Sambamoorthy | CO1 |
| How many counts does Sankeerna Chappu tala have? | | | | | | |
| 3 | 3 | Understand | A | 1 | "Psychology of Indian Music" by Ram Deshpande (2010) | CO3 |
| Recognize the emotion that raga Atana evokes. | | | | | | |
| 4 | 4 | Understand | A | 1 | South Indian Music – Vol 5, Prof P Sambamoorthy | CO4 |
| Discern two factors that contribute to a region becoming a renowned seat of music. | | | | | | |
| 5 | 1 | Understand | A | 1 | Physics of Music, R K Viswanathan, Annamalai University Publication, 1948 | CO1 |
| The frequency ratio between two notes in an octave is 2:1. Calculate the frequency of a note if its octave lower has a frequency of 150 Hz. | | | | | | |
| 6 | 2 | Understand | A | 1 | South Indian Music – Vol 2, Prof P Sambamoorthy | CO2 |
| What would be the total number of aksharas in misra jathi Jhampa tala? | | | | | | |
| 7 | 3 | Understand | B | 2 | "Psychology of Indian Music" by Ram Deshpande (2010) | CO3 |
| Recognize the basic mental states evoked on human minds by playing or singing the twelve swarastanas alone. | | | | | | |
| 8 | 4 | Understand | B | 2 | South Indian Music – Vol 5, Prof P Sambamoorthy | CO4 |
| How does humidity influence the pitch stability of a drum? | | | | | | |
| 9 | 2 | Apply | B | 2 | Physics of Music, R K Viswanathan, Annamalai University Publication, 1948 | CO2 |
| What law of vibration of strings apply on the production of high-pitched sounds in a veena? | | | | | | |
| 10 | 3 | Apply | B | 2 | "Psychology of Indian Music" by Ram Deshpande (2010) | CO3 |
| What combinations of swarastanas would you choose to create a sense of grief in a person? | | | | | | |
| 11.a | 1 | Apply | C | 7 | Physics of Music, R K Viswanathan, Annamalai University Publication, 1948 | CO1 |
| Explain the concept of echo. Differentiate Echo and Reverberance. | | | | | | |
| 11.b | 1 | Apply | C | 7 | Physics of Music, R K Viswanathan, Annamalai University Publication, 1948 | CO1 |
| If you wanted to tune a guitar to a higher pitch without changing the string, how would you apply the laws of vibration of strings to achieve this? | | | | | | |
| 12.a | 2 | Analyse | C | 7 | South Indian Music – Vol 2, Prof P Sambamoorthy | CO2 |
| Analyse how the sapta talas are expanded to 35 talas. | | | | | | |
| 12.b | 3 | Analyse | C | 7 | "Music, Thought, and Feeling: Understanding the Psychology of Music" by William Forde Thompson (2015) | CO3 |
| Analyze the impact of rhythm-based music therapy interventions on improving coordination and motor function in individuals with motor difficulties? | | | | | | |
| 13.a | 4 | Evaluate | C | 7 | South Indian Music – Vol 5, Prof P Sambamoorthy | CO4 |
| Assess how extreme temperatures affect the tuning and sound quality of stringed instruments. | | | | | | |
| 13.b | 1 | Evaluate | C | 7 | South Indian Music – Vol 1, Prof P Sambamoorthy | CO1 |
| Examine the different types of ahata nada emanating from different sources. | | | | | | |
| 14.a | 2 | Create | C | 7 | South Indian Music – Vol 2, Prof P Sambamoorthy | CO2 |
| From the 35 talas, make a list of talas which have the following number of akshara kalas.   1. 11 b. 14 c. 10 d. 12 e. 8 f. 9 g. 7 | | | | | | |
| 14.b | 3 | Create | C | 7 | "Psychology of Indian Music" by Ram Deshpande (2010) | CO3 |
| Imagine that you are with a friend who wants your help to uplift her from a sad situation. Design a list of film songs that could be used to improve her mood. | | | | | | |