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| **PT1/MA/1119B 26/05/2019** | | |
| **Subject: MATHEMATICS**  **Grade: XI** | | **Max Marks:30**  **Time: 1 Hr 10 Mins** |
| ***General Instructions:***   1. *This question paper contains 14 questions.* 2. *Questions* ***1-8*** *in* ***Section A*** *carry* ***1*** *mark each.* 3. *Questions 9****-10*** *in* ***Section B*** *carry* ***2*** *marks each.* 4. *Questions*  ***11-13*** *in* ***Section C*** *carry* ***4*** *marks each.* 5. *Question 14 in* ***Section D*** *carry* ***6*** *mark .* | | |
| **SECTION A** | | |
| 1. | Find the value of | |
| 2. | If A= {1,2,3,4,5, then the number of proper subsets of A is | |
| 3. | Find the equation of the circle with centre on X-axis, radius 5 and passes through the point (2,3) | |
|  | Find the equation of the parbola passing through (-2,3) and axis along X-axis. | |
| 5. | If A={a,b,c, find P(A). | |
| 6. | A ={x: x Є N, and x ≤ 7 } , B={ x : x Є N, x is prime and x < 8} , C= {x : x Є N, x is odd and x < 10}  find AU(B∩C) | |
| 7. | If n(A)= 32 , n(A but not B) =24 and find n(A∩B) | |
| 8. | Find the eccentricity of the ellipse 9x2+4y2 =36 | |
| **SECTION B** | | |
| 9. | If U={x B={x C={x  Find ) | |
| 10. | Find the equation of the hyperbola with focus and latus rectum is of length 2. | |
| **SECTION C** | | |
| 11. | Convert to polar form: | |
| 12. | Find the equation of a circle passing through and  and having the line segment 2x-3y-3 as diameter. | |
| 13. | Out of 240 students in grade XI of a school 140 play Hockey, 115 play football, 80 play Volleyball, 50 play Hockey and Football,40 play Volleyball and Hockey,35 play Football and Volleyball. Also, each student play at least one of the three games.  How many students i) Play all three games? ii) how many play Hockey but not Football? | |
| **SECTION D** | | |
| 14. | Solve the quadratic equation: | |

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