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| **FT/MAAK/1119A 13/06/2019** | | |
| **FIRST TERM EXAMINATION (2019 - 20)** | | |
| **SUBJECT: MATHEMATICS (SET 1 ANSWER KEY)**  **GRADE: XI** | | MAX. MARKS: 80 **TIME: 3 hours** |
| **SECTION A** | | |
| 1. | 256 | |
| 2. |  | |
| 3. | (i) = {3, 0, 8} (ii) ={2, 4, 5, 6, 3, 8, 0, 9} | |
| 4. |  | |
| 5. |  | |
| 6. |  | |
| 7. | a = 1, b = 0 | |
| 8. |  | |
| 9. |  | |
| 10. |  | |
| 11. |  | |
| 12. | Thus f is not a function as 6 has two images. Any other example. | |
| 13. |  | |
| 14. |  | |
| 15. | Domain: Range: | |
| 16. | 20.93 cm | |
| 17. |  | |
| 18. |  | |
| 19. |  | |
| 20. |  | |
|  |  | |
| **SECTION B** | | |
| 21. | …………………..……………………………………….…………………………..(1)  …………………..………..………..(½ + ½ ) | |
|  |  | |
| 22. | = ……….(1)  ………………………………….(1) | |
|  |  | |
| 23. | …………………..………..(½ )  ………………………..(1)  ………………………………………………………………….(1)  ………………………………………………………………..………..(½ + ½ )  ………………………………………………………………….(1) | |
|  |  | |
| 24. | …………………………………..…………………………………..(½)  ……………………………………………………………………..(½)  Thus ………………….…………………………………..(½ + ½) | |
|  |  | |
| 25. | ……………………………………….(½ mark for each) | |
|  |  | |
| 26. | …………………(½ mark for each) | |
|  |  | |
|  |  | |
| **SECTION C** | | |
| 27. | ………………………………….(1)    …………….(1)    ………………………………………………………….(1)  ………..…….(1) | |
|  |  | |
| 28. | ………….(1)  ……………..………………………….…………………...(1)  …………………………….………………….……………………(1)  ……………………………….……………………(1) | |
|  |  | |
| 29. | Center of first circle is …………………………………………………………….…( 1 )  Concentric circle equation ….( ½ )  Center of concentric circle is …………………………………………………………...…( ½ )  Radius of required circle …………………………..…( 1 )  Equation of required circle …………………..………………..…( 1 ) | |
|  |  | |
| 30. | ………………………..…( 1 )  ………….……………………………..…( 1 )  ……………………………….………………..…( 1 )  ………...…………..…( 1 ) | |
|  |  | |
| 31. | ………………………………..…………………….………………..…( 1 )  …………………………………………….………………..…( 1 )  …………………………….……………………………..…………..…( 1 )  …………………………….………………………………………..…( 1 ) | |
|  |  | |
| 32. | 1 mark for each | |
|  |  | |
| **SECTION D** | | |
| 33. | 2 marks for Venn diagram, and 1 mark for each answer.   1. 3 2. 16 3. 76 4. 14 | |
|  |  | |
| 34. | ……………………………………..…( 1 )  ……( 1 )  ……….…( 1 )  ……………………………………….………………………..…( 1 )  …………………………………………………..…( 1 )  ……………………………………..…..…( 1 ) | |
|  |  | |
| 35. | .  Equation of the parabola is in the form …………………….………………………..…( ½ )  …………………………..….………………………..…( ½ )  ……………….……………….………………………..…( 1 )  …………..……….……...…( 1 )  …………………….………….( 1 )  ……………....…( 1 )  ……………….……………….………………………..…( 1 ) | |
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| 36. | 3 marks each | |

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