**MWAKICAN JOINT EXAM TEAM**

**MATHEMATICS PAPER 1**

**APRIL 2016**

**MARKING SCHEME**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Numerator (N)  ¼ + 1/5 x 6/1 = 29 /20Denominator (D) 1/6 x 16 – 15 + 10 = 11 20 40N = 29 x 40 = 58 or 5 3D 20 11 11 11 | M1M1A1 | Simplifying NSimplifying D |
|  |  | 03 |  |
| 2. | 3a2 + 6ab – ab = 2b2 (b + 3a) (b – 3a) ( 3a – b) (a + 2b)(b + 3a) (b – 3a)-1 (a + 2b) b + 3a = a – 2b b + 3a | M1M1A1 | Factorising Num.Factorising Den. |
| 3 | 1. = = + =
2. = =

= 7.007 units | M1 A1 |  |
| 4. |  | B1M1A1 |  |
| 5. | 840 = G.C.D = Area = 12  | M1M1A1 |  |
| 6. | D = 0.6 =640 = 32.1shh = 19.89cm | M1M1A1 |  |
| 7. | (a)Det 20 – 9 = 11Invase ⇒ = (b)   | B1M1 |  |
| 8 |  3 - 20.2387 13.838=3 x 4.189 - 2 x 0.07224=12 . 567 – 0.14448=12. 42 4 s.f | M1M1A1 |  |
| 9 |  V. s .F = 2700 = 27  800 8 L. s. f = 3/2  A. s. f = 9/ 4 4/9 = x 2160 X = 960cm2 | B1M1A1 |  |
| 10 |  Integral values -2,-1,0,1,2 | M1M1A1 |  |
| 11 |  B15cm25cm28cm**M****N**DCA14cm |  |  |
| 12 |   | M1M1A1 |  |
| 13 |  | M1M1A1 |  |
| 14 |     = (0, 0)  | M1M1A1 |  |
| 15 |  3(m + n) = 8(m – n)  8m – 3m = 3n + 8n  5m = 11n m: n = 11: 5  | M1M1A1 |  |
| 16 | Log (x +24)-log32=log(9-2x)+log100Log = log [(9-2x)100] =900-200xX = 4.484 | M2M1A1 |  |
| 17 | 1. a) distance from NRB = 500 – (60 x ) = 350km

 X 150KM  NRB m MB = +  = 20X-12X = 3000X= 375KMb) time taken by bus remaining distance = 2hr 5min1hr 40minAvg speed is = 75km’hr | M1 A1M1M1M1A1M1B1M1A1 |  |
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