**FORM 2 MATHS**

**MARKING SCHEME**

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| 1. a) BODMAS   Numerator:  = 80+10  = 80-2 6  =80-12  =68 **✓M1**  Denominator  =6 9-2+12  =54-2+12  =64**✓M2**  =**✓Ans** | 2. Numerator  0.24+0.243  =0.483**✓M1**  Denominator  0.08 0.4  =0.2**✓M2**  =  =2.415**✓Ans** |
| 1. a)   2 36 54  3 18 27  3 6 9  2 3  233=18**✓Ans** | b) The other number =  = **✓M1** =36**✓Ans**  **‘or’**  **✓M1** =24**✓Ans** |
| a) **✓M1**   1. **✓M2** | b) 2x+8=14**✓M1**  2x=14-8  2x=6  X=3**✓Ans** |
| 1. C:\Users\USER\Pictures\2019-06-03\001.jpg |  |
| 1. Length of an arc =   88 cm= **✓M1**  88  r= **✓M2**  r =70cm ✓**Ans** | 1. Men length days   4 32 12  8 ? 8  Ratio of men; 8: 4= 2: 1**✓M1**  Ratio of days 8 : 12=2:3**✓M1**  Length of the wall=  =**✓Ans** |
| 1. 80% =960   100  **✓M1**  **✓M2**  **✓Ans** | 1. Bread =   **✓M1**  Stationery =**✓M2**  =200  =400**✓Ans** |
| 1. 1 US dollar=90.45   7500  =678,375**✓M1**  678,375-638,676=39,699 **✓M2**  1 sterling pound=132.33  =39699  =300 sterling pound**✓Ans** | 1. a: b =a:b:c   5(2:3)=10:15**✓M1**  b:c  3(5:9)=15:27  a:c=10:27**✓Ans** |
| 1. Let r=0.4074………(i)   10r=4.0740……….(ii)  100 r =40.7407……(iii) **✓M1**  1000r=407.4074……(iv)  1000r=407.4074  -  r=0.4074 **✓M2**  99r=407  R=**✓Ans** | 1. Time used=45 2=90mins   Break=15mins  Extra=15 mins  Penalties=15mins  90+15+15+15=135mins**✓M1**  1hr=60min  135  =2.15min**✓M1**  +  2:15  14.05 or 2.05pm**✓Ans** |
| 1. Bh=36   4b=36**✓M1**  B=9cm **M2✓**  P=6+9+6+9=30cm**✓ Ans** | 1. Now future   Man=3x 3x+5  Son=x x+5  3x+5+x+5=74**✓M1**  4x+10=74  4x=64**✓M2**  X=16yrs  Son= 16yrs  Man=48yrs **✓Ans** |
| 98+4.0298**✓M1**  **✓M2**  **✓Ans** | 1. a) 20% of the profit =running the business   43200**✓M1**  **✓Ans** |
| 17.b) 15% of profit=shared equally  **✓M1**  Mue =3240**✓M2**  43200-8640-6480=28080**✓M3**  28,080=shared as per the ratio of contribution  Ratio= Korir : Mue  40,0000 : 64,000  5 : 8  Mue 28,080=17,280**✓M4**  3240+17280=20,520**✓Ans** | 17.c)Kori received  28,080  =10,800  10800+3240=14040**✓M1**  1cow=1800  14040  **✓M2**  =7.8  7 cows**✓Ans** |
| 1. a) volume=L   =36  =8100**✓M1**  **✓M2**  **✓M3**  =**✓Ans** | 18.b) Density=  Mass=density volume  =15005328  =7,992,000kg**✓M1**  Ratio 1:4:4  Mass of cement= 7,992,000  =888,000kg**✓A1**  Mass of sand= 7,992,000  =3,552,000kg**✓A2**  Mass of ballast= 7992000  =3,552,000kg**✓A3** |
| 18c) 10,000=  =  **✓M1**  =Ksh 480,000**✓Ans** | 19.a) 1930h  -1230**✓M1**  700  =7hrs**✓Ans** |
| 19b) arrival=1455h  Departure=1830  1830   * 1455   3.35**✓M1**  =3hrs 35mins**✓Ans** | 19d) station y 1445  - 1350  00.55**✓M1**  =55mins  Station n 1830  -1455  3 hr 35min  Station y**✓Ans** |
| 1. e) average speed=   =**✓M1**  =60km/h**✓Ans** | 20.a) let b be bull  Let g be goat  5b+30g=117000  4b+25g=94,750**✓M1**  4(5b+30g=117,000  5(4b+25g=94750)  =20b+120g=468,000**✓M2**  20b+125g=473750 -   1. - 5g=-5750   g=1150**✓A1**  5b=82500  b=16,500**✓A2** |
| 1. b) abdul :   40% profit per bull  30% profit per goat  16500    16500+6600=23,100**✓M1**    **✓M2**  Abdul had 5 bulls and 30 goats  (5231000+(1495 30)  =115,500+44850  =160,350**✓M3**  Ali  50% profit per bull  40% profit per goat  =8250      **✓M4**  Ali had 4 bulls and 30 goats  (4 24750)+(251610)  99000+40250  =139,250  Abdul =160,350-117000  =43350  Ali=139-94750=44500**✓M5**  Hs Ali**✓Ans** | 1. a)(i) **✓M1**   220+200+220+200=840m**✓Ans**  (ii) 200  **✓M1**  28000-15400  =12600  1ha=10,000  12600**✓M2**    =1.26ha**✓Ans**  b(i) 1ha =5,000,000    1.26ha  1.265000000**✓M1**  =6,300,000 shillings**✓Ans**  B(ii) 14,760,000-6,300,000  =8,460,000**✓M1**  **✓M2**  134.28  =134.3%**✓Ans** |