MARKING SCHEME

MATHEMATICS

SECTION A

1. A 6. A 11. A 16. D

2. C 7. C 12. B 17. B

3. A 8. D 13. A 18. B

4. A 9. B 14. A 19. D

5. D 10. B 15. D 20. A

SECTION B

21. a) 1.25 tonnes = 1250 kg; 1250 ÷ 50 = 25 bags (2mks)

b) 25 × 3250 = Ksh 81250 (2mks)

22. 9^(2y-1) ÷ 3^81 = 3^(2y-1-4) = 3^1
2y - 4 - 1 = 4
2y = 9
y = 4.5 (3mks)

23. a) Goats = 1/3, Sheep = 1/4
Remainder = 1 - 7/12 = 5/12
Donkeys = 1/5 of 5/12 = 1/12
Cows = 1/2 - 1/12 = 4/12 (3mks)

b) 3/8 = 36 animals
Total = 96 animals
Goats = 1/3 × 96 = 32 goats (2mks)

24. a) 3454.78 = 3455 cm^3 (1mk)

b) Cube root = cm (from tables) (3mks)

25. a) 5600000 = 5.6 × 10^6 (2mks)

b) A:2, B:3, C:4, D:1 Total 10 parts
C = 4/10 × 5600000 = 2240000
A = 2/10 × 5600000 = 1120000
D = 560000
C - (A+D) = 2240000 - (1120000 + 560000) = Sh. 560000 (4mks)

26. 54 - 9 + (-40 × 5) - (-9)
= 6 - 200 + 9 = -185 (3mks)

27. a) Inlet rate per minute = 1/20
Discharge rate per minute = 1/30
Net rate = 1/20 - 1/30 = 1/60
After 15 mins = 15/60 = 1/4
= 1/4 full (2mks)