

MARKING SCHEME - SIGNAL 002

ABOUT US

STANDARD 8 2020

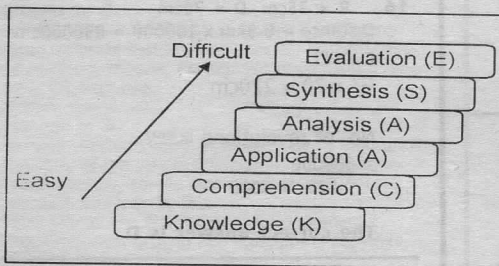
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Protocol examiners.

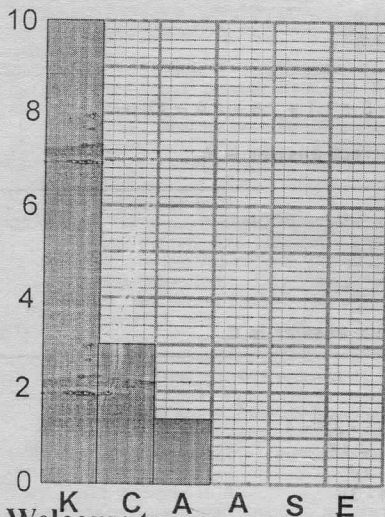
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Standard exam

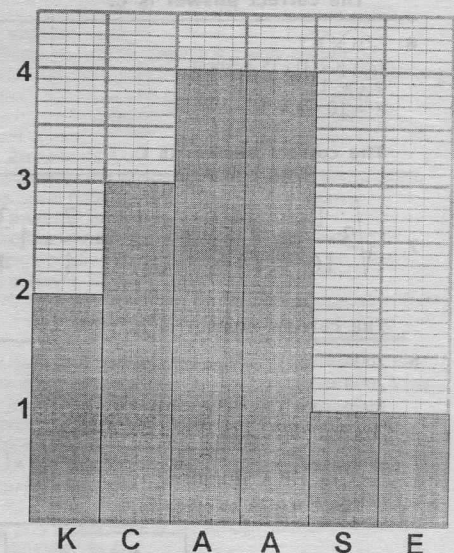
A standard exam is the one where the setter has tested from a variety of topics. It should also test rationally from all the six categories of questioning in the **blooms taxonomy**. The diagrams below are a simplified guide on how we set our exams.



Setting for Baby class to Std. 3



Setting for Std. 7&8



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MATHEMATICS WORKING 002

1. 3 0 0 0 0 0 0 - Three million
 6 0 5 0 0 0 - Six hundred and five thousand
 3 5 - Thirty five
 3 6 0 5 0 3 5 = Three million, six hundred and five thousand and thirty five.

The correct answer is A.

2. $\frac{2(4 \times 3)^2 + 2(5 + 1)}{2(2 + 3)}$

$\frac{2(12)^2 + 2 \times 6}{3 \times 5}$

$\frac{288 + 12}{15} = \frac{300}{15} = 20$

The correct answer is B.

3. 5 8 7 . 6 9 8 6 to 2 decimal places
 +1
587.70

The correct answer is C.

4. L.C.M of 8, 24, 36 = 72
 G.C.D of 8, 24, 36 = 4
 Difference = 72 - 4 = 68

The correct answer is A.

5. $\frac{4368752}{30000}$
~~300000~~
~~1000~~ = 300

The correct answer is C.

6. $\frac{25 \times 51}{(2 + x + 1) \cdot (5 + 5) = 0}$
 $3 + x - 10 = 0$
 $x = 10 - 3 = 7$

The correct answer is C.

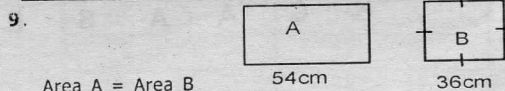
7. $\sqrt{3 \frac{1}{16}} = \sqrt{\frac{49}{16}} = \frac{\sqrt{49}}{\sqrt{16}} = \frac{7}{4} = 1 \frac{3}{4}$

The correct answer is A.

8. 2008 = 150
 2009 = 180
 Increase = 180 - 150 = 30

% increase = $\frac{\text{Increases}}{\text{Original}} \times 100 = \frac{30}{150} \times 100 = 20\%$

The correct answer is B.



Area A = Area B
 Area B = s x s = 36 x 36 = 1296m²
 Area A = L X W
 $W = \frac{A}{L} = \frac{1296}{54} = 24\text{cm}$

The correct answer is D.

10. L.C.M of 15, 24 and 60 = 120
 Ring after 120 min = 2 hours
 Next ring = 11:42am

+2:00
 13.42
 - 12:00
 1.42pm = 1.42pm

The correct answer is A.

11. 1 stride = 0.25m
 Dist = 0.25m x 1000 = 250m
 No. of strides = $\frac{\text{Dist}}{1 \text{ stride}} = \frac{250}{0.25} = \frac{25000}{25} = 1000$

The correct answer is B.

12. $A = \frac{1}{2}(a + b) \times h$
 $\frac{1}{2}(14 + 21) \times 8$
 $\frac{1}{2} \times 35 \times 8 = 140\text{cm}^2$

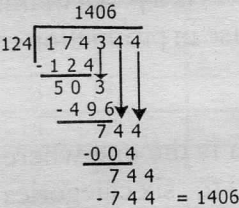
The correct answer is D.

13. $\frac{4}{5}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}$ convert to decimals = 0.8, 0.67, 0.75, 0.83
 In ascending order $\frac{5}{6}, \frac{4}{5}, \frac{3}{4}, \frac{2}{3}$

The correct answer is C.

14. B.P = sh.28000
 S.P = sh.26600
 Loss = B.P - S.P
 = 28000 - 26600
 = Sh. 1400
 $\%L = \frac{L}{B.P} \times 100 = \frac{1400 \times 100}{28000} = 5\%$

The correct answer is B.

15. 

The correct answer is C.

16. R = 35cm D = 70cm
 Distance = 8.8km x 100000 = 880000cm
 $C = \pi D$
 $\frac{22}{7} \times 70 = 220\text{cm}$

No. of revolutions = $\frac{\text{Dist}}{C}$
 $= \frac{880000}{220} = 4000$

The correct answer is D.

17. 100dm = 1km
 800DM = 8km
 1000m = 1km
 1100m = 1.1km
 7600m = 7.6km
 10Hm = 1km
 4Hm = 0.4km
 Dist. round = 8 + 1.1 + 7.6 + 0.4 = 17.1km

The correct answer is A.

18. $\frac{6^3}{5} \div \frac{3^2}{3} \times 1 \frac{1}{18}$ BODMAS
 $\frac{3^3}{5} \div \frac{11}{3} \times \frac{25}{18}$
 $\frac{3^3}{5} \times \frac{3}{11} \times \frac{25}{18} = \frac{5}{2} = 2 \frac{1}{2}$

The correct answer is C.

19. a = 3,
 b = 5,
 $c = (b - a)^2 = (5 - 3)^2 = 4$
 $d = ac = 3 \times 4 = 12$
 $2(d - b) + (c - a)^2$
 $2(12 - 5) + (4 - 3)^2$
 $(2 \times 7) + 1^2$
 $14 + 1 = 15$

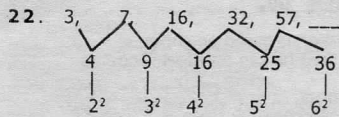
The correct answer is B.

20. Owembi: Matayo
 7:6
 Owembi = $\frac{7}{13}$ Matayo = $\frac{6}{13}$
 Difference = $\frac{7}{13} - \frac{6}{13} = \frac{1}{13}$
 More = $\frac{1}{13} \times 26000 = \text{Sh. } 2000$.

The correct answer is D.

21. Shaded area = Area of quarter circle - Area of triangle.
 $= (\frac{1}{4} \times \frac{22}{7} \times 14 \times 14) - (\frac{1}{2} \times 14 \times 14) = 154 - 98 = 56\text{cm}^2$

The correct answer is C.



$$57 + 36 = 93$$

The correct answer is B.

23. B.P = 3200 = 80%
M.p = ? = 100%

$$\frac{3200 \times 100\%}{80\%} = \text{sh. } 4000$$

The correct answer is A.

24. $1\frac{1}{4}\% = \frac{5}{400} = 1:80$

The correct answer is C.

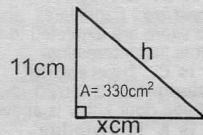
25. Njoroge = p Wife = p - q
in 5 years time
Njoroge = p + 5
Wife = p - q + 5
Total = p + 5 + p - q + 5
= p + p - q + 5 + 5
= (2p - q + 10) years

The correct answer is A.

26. PQR = Equilateral triangle
Angle PRQ = 60°, Angle PRS = 180° - 60° = 120°
PRS = Isoscles triangle
Angle PSR = $\frac{180^\circ - 120^\circ}{2} = 30^\circ$

The correct answer is D.

27.



$$a = \frac{1}{2} b \times h$$

$$b = \frac{a \times 2}{h}$$

$$= \frac{330 \times 2}{11} = 60\text{cm}$$

$$h = \sqrt{60^2 + 11^2}$$

$$= \sqrt{3721} = 61\text{cm}$$

The correct answer is B.

28. P = 30000
R = 8%
T = 3 years
 $I = P \times \frac{R}{100} \times T$
 $30000 \times \frac{8}{100} \times 3 = 7200$

$$A = P + I = 30000 + 7200 = \text{Sh. } 37200$$

The correct answer is C.

29. T.S.A = $2\pi r^2 + \pi dh$
 $= (2 \times \frac{22}{7} \times 14 \times 14) + (\frac{22}{7} \times 28 \times 35) = 1232 + 3080 = 4312\text{cm}^2$

The correct answer is D.

30. D = 200m
T = 5 sec
 $S = \frac{D}{T} = \frac{200}{5} = 40\text{m/s}$
 $= \frac{40 \times 36}{10} = 144\text{km/h}$

The correct answer is B.

31. C = 7%
Total sales = 450000
Comm = $\frac{7}{100} \times 450000 = \text{Sh. } 31500$

The correct answer is D.

32. 9 people = 15hrs
1 person = (15 x 9) hrs
9 - 3 people
 $= \frac{15 \times 9}{6} = 22\frac{1}{2}\text{hrs}$
more = $22\frac{1}{2} - 15 = 7\frac{1}{2}\text{hrs}$

The correct answer is A.

33. Total wire = 880m (2 strands)
1 strand = $\frac{880}{2} = 440\text{m}$

$$\text{Circ} = 440\text{m}$$

$$C = \pi D$$

$$\frac{7 \times 440}{22} = \frac{22 \times 7 \times d \times 7}{22}$$

$$d = \frac{7 \times 440}{22} = 140\text{m}$$

$$r = \frac{d}{2} = \frac{140}{2} = 70\text{m}$$

The correct answer is D.

34. Total milk = 10 x 7 = 70L

$$10\text{dl} = 1\text{L}$$

$$70\text{L} = 70 \times 10 = 700\text{dl}$$

$$5\text{ dl bottles} = \frac{700}{5} = 140$$

The correct answer is B.

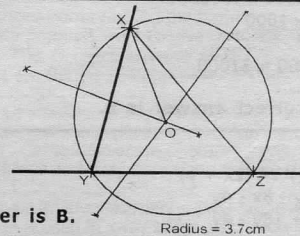
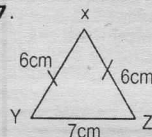
35. ABC = DBJ = vertically opposite
ABC = 60°
ALH = ABC = corresponding CHG = AHL = vertically opposite
AHL = 70°
BAC = 180° - (60 + 70)°
= 50°

The correct answer is B.

36. Sugar = 160.00
c/fat = 85 x 2 = 170.00
Beans = 65 x 3 = 195.00
T/leaves = 120.00
Total bill = sh.645
Bal = 1000.00 - 645.00 = 355.00

The correct answer is D.

37.

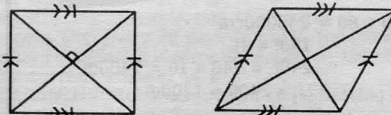


The correct answer is B.

38. $x + 3x - 40 + x + 70 = 180^\circ$
 $5x + 70 - 40 = 180^\circ$
 $5x = 180^\circ - 30^\circ$
 $5x = 150^\circ$
 $x = 30^\circ$
 $(3x - 40^\circ) = 50^\circ$
 $(x + 70^\circ) = 100^\circ$
Difference = $100^\circ - 30^\circ = 70^\circ$

The correct answer is C.

39. Properties for both square and rhombus.



- (i) All sides are equal
- (ii) Opposite sides are equal and parallel.
- (i) and (vi)

The correct answer is A.

$$40. \frac{2x + 3x - 5}{3} = 5$$

$$3x \frac{5x - 5}{3} = 5 \times 3$$

$$5x - 5 = 15$$

$$5x = 15 + 5$$

$$5x = 20$$

$$x = 4$$

The correct answer is D.

41. Length = 6cm

A. length = $24 \times 100000 = 2400000\text{cm}$

Scale = $\frac{A.L}{D.C}$

$$\frac{2400000}{6}$$

$$1:400000$$

The correct answer is A.

42. $15\% \times 500 = \frac{15}{100} \times 500 = 75$

$$\frac{1}{2} \times 300 = 150$$

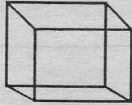
$$75 < 150$$

The correct answer is B.

43. L.C. M of 9, 15 and 20 = 180cm

The correct answer is B.

44. Solid formed = square prism(cube)



The correct answer is D.

45. $\sqrt{\frac{1764}{100}} = \frac{\sqrt{1764}}{\sqrt{100}} = \frac{42}{10} = 4.2$

The correct answer is A.

46. $\frac{1.33 \times 5.1 \times 1000000}{0.19 \times 0.0017 \times 1000000}$

$$\frac{133 \times 51 \times 1000}{19 \times 17}$$

$$= 21 \times 1000 = 21000$$

The correct answer is B.

47. $9(2x + 2y) \cdot 4(2x + y)$

$$18x + 18y - 8x - 4y$$

$$18x - 8x + 18y - 4y$$

$$10x + 14y$$

The correct answer is C.

48. Draw a vertical line from town J and horizontal line from town O to get fare amount of J to O = sh. 200. On return journey draw line from town M to meet the one from O and get fare from O to M = sh. 100. Draw another horizontal line from M to meet the one from J and get fare from M to J = sh. 150. Total return journey fare = sh. 100 + 150 = sh. 250
Difference = sh. 250 - 200 = sh. 50
The correct answer is A.

49. $V = L \times W \times H = 50 \times 60 \times 80 = 240000\text{cm}^3$

$$1000\text{cm}^3 = 1\text{L}$$

$$= \frac{240000}{1000} = 240\text{L}$$

$$10\text{dl} = 1\text{L}$$

$$240\text{L} = 240 \times 10 = 2400\text{dl}$$

$$\frac{1}{2} \times 2400 = 1200\text{dl}$$

The correct answer is B.

50. The pattern rotates anticlockwise. The next shape is D

The correct answer is D.

ENGLISH MARKING SCHEME 002

- Reasoning: B - 'Good'**: The question is based on choice of appropriate vocabulary. When is tired he can only feel 'Good' to take a rest.
The correct answer is B. 'Good'
- Reasoning: D 'Cases'**: Being overcome by sleep in a specific case so, it happens in some cases.
The correct answer is D. 'Cases'
- Reasoning: B 'After'** - Candidates need to choose the correct preposition to use here. Sensibly, one can easily be overcome by sleep after a meal.
The correct answer is B. 'After'
- Reasoning: D 'whether'** - Here a number of meals are listed but we are not specific on any of them so, we have to use 'whether'.
The correct answer is D. 'Whether'
- Reasoning: C - 'MEAL'**: lunch, supper, breakfast or dinner are collectively called 'meals'.
The correct answer is C 'Meal'
- Reasoning: B - 'relaxes'**: We need to identify the correct vocabulary. As one sleeps, the body relaxes.
The correct answer is B. 'Relaxes'
- Reasoning: A - 'Which'**: The brain is the subject of the sentence and can only be followed by 'which' 'Who' and 'whom' is used with people.
The correct answer is A. 'Which'
- Reasoning: C - 'At'**: When one has no problem with any other person. We say he is at peace with others. Similarly, when the brain is inactive due to body relaxation, we can say the same.
The correct answer is C 'At'
- Reasoning: D - 'working'**: As soon as one wakes up, the brain gets engaged thus, it starts the work of directing the functions of the body.
The correct answer is D. 'Working'
- Reasoning: B - 'However'**: The question is based on conjunctions of contrast. The existence of the two common should give a hint to the candidate of the expectation.
The correct answer is B 'However'
- Reasoning: C - 'Such'**: The structure of 'such a --' should be easy for candidates to master. (i.e) He was such a kind man that everybody liked him.
The correct answer is C. 'Such'
- Reasoning: D - 'Give'**: Phrasal verb 'Give up' means to loose hope. Here, it refers to losing hope of ever falling asleep.
The correct answer is D. 'Giving'
- Reasoning: C - 'Interesting'**: Candidates should choose the correct verb. Those who snore are expected to know about it but since they don't know, it is just interesting.
The correct answer is C. 'Interesting'
- Reasoning: A - 'Knowledge'**: The correct choice of vocabulary is important here. What you don't know is above your knowledge.
The correct answer is A 'knowledge'
- Reasoning: B 'How'**: The manner of adjectives (how it happens or is done) must be memorized by the candidates. Those who snore as just told 'how' loudly they snored.
The correct answer is A - 'How'
- Reasoning: D - 'would'**: The use of 'would', could, should, might be is very confusing to candidates. Kimeu did not go to hospital because he was not aware of his sickness. He would have gone.
The correct answer is D. 'Would'
- Reasoning: B - 'In'**: The correct preposition to use with writing work is 'in'. He wrote it in ink.
The correct answer is B 'In'
- Reasoning: D - 'You should help the less fortunate'**: This is what is expected of you so, it is an obligation. It means the same as 'you ought to'.
The correct answer is B 'You should help the less fortunate.'
- Reasoning: A - 'No sooner had the bell rung than we left for home'**: These are simultaneous actions. One ended and immediately another started. It means. As soon as the bell rang, we left for home.
The correct answer is A.
- Reasoning: C - 'Generous'**: The word 'mean' means a person who finds it very difficult to give out anything and the opposite of this is 'generous'.
The correct answer is C 'generous'
- Reasoning: B - 'Sharp'**: Blunt means - the edge of a tool e.g knife which does not cut with ease, requiring sharpening. The opposite of 'blunt' is 'Sharp'.
The correct answer is B 'Sharp'
- Reasoning: C - 'The train leaves the station at exactly five o'clock'**: You are expected to reach there half an hour before. Your luggage must be received and recorded at this time. No passenger is allowed to board the train when it starts moving.
The correct answer is C 'iii, iv, i, ii'
- Reasoning: A - 'We got the menu immediately we sat down'**: A waiter came and asked us to place our orders. We ate the food and took a drink of water. My father paid the bill before we left.
The correct answer is A 'iii, ii, iv, i'
- Reasoning: D - "It is dangerous to ran across the road!"** warned the policeman - Candidates must be keen in the use of opening speechmarks, exclamation mark, closing speechmarks and the fullstop.
The correct answer is D.
- Reasoning: A - All the standard five pupils of Sunira primary school are present today - Candidates must be keen on capitalisation of proper nouns (a) Sunira Primary School and Standard Five.** **The correct answer is A.**

UCHANGANUZI WA KISWAHILI SIGNAL 002

1. **Malezi**- Ni nomino katika ngeli ya Ya- Ya (Ulezi-Malezi) Upatanisho wake wa kisarufi ni ya. Kwa hivyo tunasema kuyawajibikia.
Jibu sahihi ni B - 'Kuyawajibikia'.
2. **Hoja** - 'ifaayo' - Hapa tunaogozwa na neno njia.
Jibu sahihi ni D - 'ifaayo'.
3. **Hoja**- rai ni afa au siha. Nia ni lengo au azma ya kufanya jambo. Ari ni hamu inayompa mtu msukumo katika utendaji.
Jibu sahihi ni A -'rai'.
4. **Hoja** - Minyambuliko ya kitenzi la ni kula, lisha, lishwa, lika, liwa, liwaliwa, liliwa n.k Mtoto anafaa alishwe lishe bora.
Jibu sahihi ni C
5. **Hoja** -Hadi ni kuhusishi cha wakati au mahali chenye maana ya mpaka. Bali ni kiunganishi cha hitilafu chenye maana ya lakini. Ama hitumika kuchagua kati ya vitu viwili (au) Mfano, unamhitaji mwalimu huyu ama yule? Aidha ni pia au vilevile.
Jibu sahihi ni D - 'Aidha'.
6. **Hoja** -Kinachohitajika hapa ni kielezi cha namna bali si kivumishi yaani kuelewa vipi? (vizuri)
Jibu sahihi ni B - 'vizuri'
7. **Hoja** - Maelezo ya ziada hufungiwa kwa mabano() au kistari mwanzoni na mwishoni na pia koma mwanzoni na mwishoni. K.m Akipatwa na maafa yoyote (hata yawe madogo kiasi gani) mzazi au pale...
Akipatwa na maafa yoyote- hata yawe madogo kiasi gani- mzazi au pale...
Akipatwa na maafa yoyote, hata yawe madogo kiasi gani, mzazi au pale....
Jibu sahihi ni A - (Kipumuo) (,).
8. **Hoja** - Kumfarji- kumliwaza mtu; kumtuliza.
- kumliza- kumfanya alie
- kumtukuzi- kumsifu, kumtwa
- kumbeza- kumdharau
Jibu sahihi ni A - 'kumfarji'
9. **Hoja** - Hapa tunaogozwa na neno 'matendo' bali si mzazi. **Jibu sahihi ni C - 'yawe'.**
10. **Hoja** - Uchungu wa mwana aujuaye mzazi- mzazi ndiye anayemthamani zaidi mwanawe. Ajuaye thamani ya kitu ni yule aliyekisumbukia ili kukipata.
-Mwana akibebwa hutazama kisogo cha mamaye. Tabia ya mtoto huathirwa na walio na mamlaka juu yake.
- Mwenye macho haambiwi tazama- Aliye na macho hujionea bila ya kuelekeza.
-Ukiona vyaalea jua vimeundwa- Ni vyema kufanya bidii kufanikisha mambo yetu. Ukiona jambo zuri ujue kuwa yupo mtu aliyejitahidi kulifanikisha.
Jibu sahihi ni B - 'Mtoto akibebwa hutazama kisogo cha mamaye'.
11. **Hoja** - Tunarejelea nafsi ya tatu umoja(yeye)
Jibu sahihi ni D - 'Ndiye aliyenifunza'.
12. **Hoja** - Hali ya kuwahudumia wengine bila malipo ni 'ukarimu' Tabia ya kuwa mchangamfu na mwenye furaha kwa watu ni ucheshi.
Jibu sahihi ni C- hali ya kuwa na mienendo inayokubalika katika jamii.
13. **Hoja** - nikono birika- tabia ya uchoyo, mkono wa buli.
- mkono mzito- hali ya kulegea kazini.
- mkono wazi- kupenda kuwasaidia wengine, ukarimu.
- Mkono mrefu- kuwa na uwezo mkubwa- tabia ya wizi.
Jibu sahihi ni A- mkono birika.
14. **Hoja** - Ila -Isipokuwa, kwani- kwa kuwa, wala- hutumiwa kukanusha vitendo viwili k.v Sitaki kula wala kunywa chochote' Ilhali- Huonyesha hali iliyo kinyume na matarajio. Kwa mfano, Ungewezaje kufanikiwa ilhali hukufanya bidii?
Jibu sahihi ni B - kwani.
15. **Hoja** - Dhamini ni kumlipia mtu dhamana ili ahudumiwe a aachiliwe huru. Thamini ni kutilia mtu au kitu maanani .
Jibu sahihi ni D- kuyadhamini masomo yangu
16. **Hoja** -Sauti za neno ng'onda ni ng'-o-n-d-a.
Jibu sahihi ni D - tano.
17. **Hoja** -Wingi wa jirani ni majirani ilhali wingi wa cherehani ni vyerehani (XI-VI)
Jibu sahihi ni A- Majirani zetu wamenunua vyerehani.
18. Maji na makato ni nomino za wingi; wema, huzuni na amani ni nomino dhahania. Kenya ni nomino ya pekee. Buu na kitita ni nomino za makundi /jamii wananchi ni nomino ambika.
Jibu sahihi ni B- 'Wema , huzuni , amani (nomino dhahania)'
19. **Hoja** - Ashakum ni tamko analotaja mtu anapohamu kuwa lile analokusudia kusema linaweza kuwakera wanacmsikiliza. Kunradhi ni neno la kuomba msamaha. Simile ni tamko la kuomba nafasi ya kupita.
Jibu sahihi ni C -'pole'
20. **Hoja** - Vikembe - ni wana wa wanyama
Mifano: Ngamia- nirahi Punda- kihongwe
Mbuzi- kibuli Kipepeo- kiwavi
Kondoo- katama
Nzi - buu
Nguruwe- kivinimbi
Jibu sahihi ni C -'Nzi - buu'
21. **Hoja** - Hali ki ya masharti hukanushwa na -sipo-
Jibu sahihi ni B - 'Mwanao asipokuona hatakukimbilia.'
22. **Hoja** - Debe likiwa tupu hutoa sauti lakini linapojazwa aghalabu halina mlio.
Jibu sahihi ni A. 'Debe'
23. **Hoja** - Tunasema 'alinipa' bali si 'alinipea'.

Sahihi ni 'alipangusa', hatusemi alipanguza.

Tunafaa kusema 'kadhaa' au 'kadha wa kadha'

Ni kosa kusema 'kadhaa wa kadhaa'

Jibu lifaalo zaidi ni D- Tuliutikisa mti matunda yakaanguka.

24. **Hoja** - Hatufai kubadili aliyetenda kitendo ambaye ni Maua kwa kusema kuwa alitendewa. Yaani, Maua alipika wali nao wali ulipikwa na Maua. **Jibu sahihi ni A- Wali ulipikiwa kwa Hamisi na Maua.'**
25. **Hoja** - Vitabu vizuri vitanunuliwa Alhamisi.
Nomino Kivumishi kitenzi Kielezi cha wakati
Jibu sahihi ni C - 'Kivumishi, kielezi'
26. **Hoja** - Waba - ugonjwa wa kuendesha na kutapika, kipindupindu. Mafua- ugonjwa usababishao hali ya kuumwa na kichwa na kutokwa kamasi.
Kifua kikuu- maradhi ya kukohoa damu.
Jibu sahihi ni B - 'kifaduro.'
27. **Hoja** - Mama alikuwa akipiga deki- wakati uliopita hali ya kuendelea. Mtoto atalazwa kitandani- wakati ujao. Najua tofauti ya mandari na mandhari - wakati uliopo hali isiyodhihirika.
Jibu sahihi ni D. 'Jua limewaka sana msimu huu.'
28. **Hoja** - Mkiritimba - Mtu mbinafsi anayewazuia wengine kushiriki biashara fulani ili afaidike peke yake.
Mkimbizi - anayeondoka nchini mwake ili kuepuka dhuluma au janga fulani.
Mzalendo - anayependa sana nchi yake kiasi cha kuwa tayari kuifia. **Jibu sahihi ni B - 'Mlowezi'.**
29. **Hoja** -Kuvumilia ni kitenzi-jina.
Uvumilivu ni nomino.
Neno mvumo ni nomino inayotokana na kitenzi vuma'
Jibu sahihi ni A- Mvumilivu
30. **Hoja** - Mtaka unda haneni- unapoamua kutenda jambo, ni vyema ulitende moja kwa moja bila kusifia watu kuwa unapanga kulitenda.
Penye nia pana njia- mtu anapokata shauri kutenda jambo, hata kama hana uhakika kuhusu namna atakavyolitekeleza, bila shaka nafasi ya kulifanikisha hupatikana tu. Hatufai kukata tamaa tunapoazimia kutenda mambo.
Mwanzo wa ngoma ni lele- mambo makubwa huwa na mianzo midogo. Tusidharau mianzo midogo maishani.
Jibu sahihi ni B- 'Mtu hujikuna ajipatapo'.

SCIENCE MARKING SCHEME 002

1. **REASONING:** The part marked P is the bicuspid valve used to prevent blood from flowing back from the left auricle when the left ventricle relaxes. **The correct answer is C.**
2. **REASONING:** Cashew nuts are legumes which mainly contain proteins. Carbohydrates are mainly got from cereal crops. **The correct answer is B.**
3. **REASONING:** Levers make work easier by increasing the effort distance. The first class levers have the fulcrum position in the middle, the 2nd class levers have the load position in the middle while the 3rd class levers have effort position in the middle. Claw hammer is in the 1st class, crow bar is in the 1st class while spade is in the 3rd class. **The correct answer is C.**
4. **REASONING:** Heat in liquids is transmitted through convection. The sand particles are put in boiling water to show the movement of convection currents in the heated water. **The correct answer is B.**
5. **REASONING:** During foetal development, the placenta facilitates the transfer of food and oxygen from the mother to the foetus. It also prevents harmful substances from reaching the foetus. It facilitates the transfer of waste products from the foetus to the mother who excretes them. **The correct answer is D.**
6. **REASONING:** The following are the air components and their functions.
Oxygen- burning, breathing, germination, rotting and rusting.
Nitrogen - making proteins in leguminous plants and controlling the rate at which oxygen is used . Carbon dioxide - photosynthesis, fire extinguishing, preserving of foods and fizzy drinks and making dry ice.
Rare/ inert gases - neon is used in advertisement lights, Argon is used in hot air balloons, xenon is used in x-ray tubes and helium is used in hot air balloons. **The correct answer is A.**
7. **REASONING:** Newt is an amphibian which has moist skin, lays eggs and has external fertilization. Snake is a reptile which has scales, lives on land and breathes through lungs while tilapia is a fish which breathes through gills, has external fertilization, is cold blooded and is cold blooded. **The correct answer is C.**
8. **REASONING:** The diagram shows a windsock with the wide end open and narrow end closed. Both ends of a windsock should be open. The mistake the pupils made was closing the narrow end. **The correct answer is A.**
9. **REASONING:** The closer the planet is to the sun, the shorter the orbit while the further the planet from the sun, the longer the orbit. The following is the order of the planets from the sun; Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune. **The correct answer is D.**
10. **REASONING:** The releasing of a mature ovum from the ovary happens after every 28 days regularly. The month of January has 31 days therefore it is likely to happen on 13th of February. **The correct answer is B.**
11. **REASONING:** Refraction of light is the bending of a ray of light as it travels from one medium to another. This can be seen through a ruler appearing bend when partly immersed in water, a pool appearing shallow than it is, a coin put in water appearing bigger and shallow than it is. Using a periscope to observe things in a bend is the effect of reflection. **The correct answer is A.**
12. **REASONING:** Anaemia is caused by lack of iron, kwashiorkor caused by lack of proteins, Rickets caused by lack of calcium,

- phosphorus and vitamin D while marasmus is caused by malnutrition or starvation. **The correct answer is C.**
13. **REASONING:** Opaque materials do not allow light to pass through neither can one see through. **The correct answer is D.**
 14. **REASONING:** In stall-feeding/zero grazing, livestock is confined in stalls where food and water is supplied. There is high production and a small area can accommodate many animals. **The correct answer is A.**
 15. **REASONING:** The best method of controlling HIV and AIDS is mass education done where there is a large collection of people at the same time. **The correct answer is D.**
 16. **REASONING:** The mixture of salt, sand and coffee beans is separated as follows; 1st coffee beans are hand picked, the mixture of salt and sand is dissolved then filtered to remove sand then evaporated for the salt to be obtained. **The correct answer is B.**
 17. **REASONING:** Farm yard manure is made using organic materials. It contains a wide variety of nutrients, it is bulky, takes time to prepare, improves soil structure, can lead to growth of weeds, it does not release nutrients very fast but it has a lasting effect in soil. **The correct answer is B.**
 18. **REASONING:** The part of the flower labelled **M** is the stigma. Its main function is to receive pollen grains during pollination. **The correct answer is A.**
 19. **REASONING:** Ball bearings are used between two moving parts to reduce friction. Other methods of reducing friction are, use of grease or oil, smoothening surfaces and streamlining shapes. **The correct answer is C.**
 20. **REASONING:** In the diagram shown, the key guide is the direction of the arrows. **R** is freezing, **S** is melting, **U** is evaporation while **T** is condensation. **S** and **U** involves increase in temperature while **R** and **T** involves decrease in temperature. **The correct answer is A.**
 21. **REASONING:** Liver flukes and worms are internal parasites. They can be controlled by deworming (bolusing or drenching) or rotational grazing which controls both internal and external parasites. **The correct answer is C.**
 22. **REASONING:** When carrying out experiment on drainage, the following factors should be controlled/ same. size of the funnels, amount of soil, amount of water, time and amount of the cotton wool. The water collected can be measured with a standard container or measuring cylinder. **The correct answer is B.**
 23. **REASONING:** When making a beam balance, the following steps should be followed:
 - (i) Make the base and fix the stand on it
 - (ii) Find the balancing point of the arm
 - (iii) fix the arm on the stand
 - (iv) suspend the tins on both sides of the arm.**The correct answer is A.**
 24. **REASONING:** Mould is a non- green plant while groundnut is a flowering plant. **The correct answer is D.**
 25. **REASONING:** In water conservation, water is re-used when after using it, it is used for another purpose without removing the impurities resulting from the first use. **The correct answer is C.**
 26. **REASONING:** Nimbus clouds are dark grey in colour, are found low in the sky, are mountainous and show heavy rainfall. Cumulus clouds are white and fluffy in colour, they have a flat bottom, are found low in the sky and indicate fine weather. **The correct answer is A.**
 27. **REASONING:** Car battery and dry cells contain special chemicals which react to generate current electricity. **The correct answer is D.**
 28. **REASONING:** Wasps and bees protect themselves by stinging. **The correct answer is B.**
 29. **REASONING:** The platelets in the blood help in blood clotting (solidification of blood when exposed to air). This prevents further bleeding and entry of germs, they are the smallest blood components. **The correct answer is D.**
 30. **REASONING:** The diagram shows interdependence in plants by support. The plant with a weak stem coils on the other with firm stem to remain upright. **The correct answer is C.**
 31. **REASONING:** There are 3 main effects of HIV and Aids;
 - To the individual
 - opportunistic diseases.
 - Body weakness.
 - Stigmatization
 - To the family
 - Loss of the bread winner
 - Embarrassment
 - A lot of expense when caring for the HIV victim
 - To the nation
 - A lot of money is spend on drugs.
 - Congestion in hospitals.
 - A lot of orphans in the country**The correct answer is A.**
 32. **REASONING:** When choosing a method for separating mixtures, the following factors should be considered; For winnowing we should consider the weight of the mixture particles, in sieving we consider the size of the different particles and in the use of a magnet we consider Magnetic and non-magnetic materials. **The correct answer is C.**
 33. **REASONING:** During the window stage of the HIV and AIDS infection, one looks healthy and there are no signs or symptoms. **The correct answer is B.**
 34. **REASONING:** The materials assembled were; The rainbow was formed on the white manila paper. **The correct answer is A.**
 35. **REASONING:** The diagram shows a wondering Jew. It has bluish/ purple flowers and grows along the ground. **The correct answer is C.**
 36. **REASONING:** Cholera is a water borne disease caused by germs found in contaminated water. It can be best controlled by proper disposal of human waste and covering pit latrines(observing hygiene). **The correct answer is D.**
 37. **REASONING:** Compound fertilizers contain 2 or more macro (major) elements. They include; Diamoniunphosphate, Nitrogen Phosphate Potassium and Mono- ammonium phosphate. **The correct answer is C.**
 38. **REASONING:** Stalk borers damage crops by making holes on the stems, cutworms cuts the stems of young seedlings, army worms feeds on the leaves. **The correct answer is B.**
 39. **REASONING:** There are 5 major components of the environment; soil, air, water, plants, animals. Plants and animals are living/ biotic. **The correct answer is D.**
 40. **REASONING:** The tendency of the body to resist change whether in motion or stationary is known as inertia. **The correct answer is D.**
 41. **REASONING:** The following are labelled parts of the digestive system and their functions, in the mouth, saliva digest starch. In the stomach, the gastric juice digests proteins. The food is absorbed in the small intestine / ileum. Water and mineral salts are absorbed by the colon. The anus facilitates the egestion of undigested food materials. **The correct answer is A.**
 42. **REASONING:** When preserving food, honey prevents entry for oxygen and bacteria, drying removes water, salting removes water / dehydrates food while canning prevents entry for germs and oxygen. **The correct answer is A.**
 43. **REASONING:** The animals feeds containing proteins are glycine, lucerne, desmodium and fish meal. **The correct answer is B.**
 44. **REASONING:** In the above experiment, the black polythene paper was used to prevent entry of light to prevent photosynthesis. **The correct answer is A.**
 45. **REASONING:** At the age of 14 weeks, the child is given the 3rd dose of DPT (diphtheria, pertussis/ whooping cough and tetanus) and the oral polio vaccine. **The correct answer is D.**
 46. **REASONING:** A balanced diet contains Carbohydrates (energy giving food) Proteins (body building food) and vitamins (protective foods) . **The correct answer is A.**
 47. **REASONING:** The layer marked **R** in the compost heap shown is farm yard manure which provides food to the bacteria. **The correct answer is B.**
 48. **REASONING:** Tools should be stored properly in order to prevent theft, to control accidents and prevent rusting. **The correct answer is C.**
 49. **REASONING:** In the experiment, the hot water warmed the air in the bottle which expanded making the balloon to get inflated with expanding air. Gases expand the most when heated. **The correct answer is D.**
 50. **REASONING:** In the above experiment, only electric conductors can make the bulb light when put in the open gap. All metals, water, carbon and graphite (pencil material) are electric conductors. **The correct answer is B.**

SOCIAL STUDIES MARKING SCHEME 002

1. **Reasoning:** Governor's office in Nuru area shows that the area is headed by a Governor who is elected in the county during general elections. **The correct answer is C.**
2. **Reasoning:** Land slopes from a high to a low region. River Wazo flows from South East to North West. **The correct answer is A.**
3. **Reasoning:** Nuru town is found at a road junction. This means, its location was influenced by transport network system in the area. **The correct answer is A.**
4. **Reasoning:** The planted forest in Nuru area is a water catchment area. R. Wazo originates from the forest. **The correct answer is B.**
5. **Reasoning:** The road should be subdivided into straight sections and each measured independently using a straight edge of paper. A non-elastic string can also be used to measure the distance. **The correct answer is C.**
6. **Reasoning:** Nuru area has coffee and tea growing. These crops do well in areas with cool and wet climate and red volcanic soil. **The correct answer is D.**
7. **Reasoning:** The south Eastern region has tea growing activity. This crop does well in areas with cool and wet climate. This is also a high altitude area with river wazo originating from the region. **The correct answer is D.**
8. **Reasoning:** Traditional methods of predicting weather include observing the sky, movement of some insects e.g ants, locust and butterflies, dew in the morning, shedding of some trees leaves, croaking of frogs, the moon and behavior of some animals. **The correct answer is A.**
9. **Reasoning:** In Africa, Portuguese colonized the following countries; Angola, Mozambique, Guinea-Bissau, Cape Verde, Sao Tomé and Príncipe and Equatorial Guinea. **The correct answer is C.**
10. **Reasoning:** Expansion of industries results to emission of a lot of gaseous waste like carbon dioxide, carbon monoxide and sulphur dioxide in the atmosphere. This leads to global warming. **The correct answer is A.**
11. **Reasoning:** Alluvial soil/silt / young soils is the top fertile soil eroded and deposited along river valleys and flood plains, they are fertile and well drained. They are good for growing of variety of crops. **The correct answer is D.**
12. **Reasoning:** Haile Selassie was the last emperor of Ethiopia. Ethiopia was not colonized although there was an attempt to colonize it by the Italians but they were defeated by Ethiopian army led by Menelik the 2nd in the battle of Adowa. Haile Selassie was a founder member and the first chairman of OAU

(Organization of Africa Union) in the year 1963. This saw the headquarters based in Addis Ababa in Ethiopia. **The correct answer is B.**

13. **Reasoning:** There are 3 ways of acquiring Kenyan Citizenship; Birth (majority of Kenyans), registration and dual citizenship. A foreigner married to a Kenyan can register to be a Kenyan Citizen. **The correct answer is C.**

14. **Reasoning:** Most of the Germany's population is based in urban centers where most jobs are found. **The correct answer is B.**

15. **Reasoning:** Conflicts are the challenges experienced in the society. In schools, conflicts are generally caused by disobedience of school rules, poor performance and unfair treatment of some pupils by the teachers. Fairness and justice are factors promoting peace in the society. **The correct answer is D.**

16. **Reasoning:** Ethiopia has the largest population in Eastern Africa. Most of the people live in rural areas and the larger population is of youth. The most densely populated country in Africa is Mauritius. **The correct answer is A.**

17. **Reasoning:** The place marked T is lake Magadi. The mineral mined here is Soda ash and its uses includes: Making glasses, dyes, manufacture of paper, making some medicines, soaps and softening water. **The correct answer is B.**

18. **Reasoning:** The country marked S is Tanzania. It gained independence in the year 1961. It used constitutional means such as negotiation and formation of political parties to gain independence. **The correct answer is A.**

19. **Reasoning:** The winds marked X are South Eastern monsoon wind . They are responsible for rainfall experienced in Eastern Africa highlands. **The correct answer is D.**

20. **Reasoning:** Traditional industries made crude tools for different uses. They included; blacksmiths(iron smelting),pottery, weaving, carving and basketry. **The correct answer is C.**

21. **Reasoning:** The following are factors influencing vegetation cover of a place; rainfall, soil, drainage, relief and human activities. **The correct answer is A.**

22. **Reasoning:** Swampy areas harbours pests like mosquitoes and water snails which spread malaria and bilharzia respectively. They are therefore avoided during settlement. **The correct answer is C.**

23. **Reasoning:** During colonial administration in Africa, different colonial powers used different systems and policies; British-Indirect rule in Kenya and Northern Nigeria, Portuguese-assimilado, French-Assimilation, Germans-Direct rule, Belgians -Pe tanalism(direct rule). **The correct answer is A.**

24. **Reasoning:** The head teacher's roles includes; Day to day running of the school , secretary of the school management committee, chairman of the staff meeting, admits new pupils and supervises teachers. **The correct answer is D.**

25. **Reasoning:** Mining affects the environment by degrading it, interfering with the vegetation growth and agricultural activities. **The correct answer is B.**

26. **Reasoning:** Forests in the Democratic Republic of Congo are natural. They have the following characteristics; trees are mainly hardwood, trees are in mixed species, take long to mature, they are indigenous and are irregularly arranged. Examples are ebony, teak, mahogany, iron wood, rosewood, iroko and oak. **The correct answer is C.**

27. **Reasoning:** The citizens have right to peaceful demonstration. The government should provide them with security. **The correct answer is D.**

28. **Reasoning:** The following are salty water lakes found in the rift valley; L . Bogoria, L. Nakuru, L. Elementaita and L. Magadi other lakes such as L. Naivasha , L. Turkana and L.Baringo are fresh water lakes. **The correct answer is B.**

29. **Reasoning:** The population graph shown is wider at the base and narrows towards the top. This indicates that the population is youthful, there are few old people. **The correct answer is A.**

30. **Reasoning:** The great North road passes through towns in South Africa, Zambia, Zimbabwe, Malawi, Tanzania, Kenya, Sudan and Egypt. **The correct answer is A.**

31. **Reasoning:** South Africa is a developed country because it has variety of expensive minerals that have promoted growth of many different industries. **The correct answer is C.**

32. **Reasoning:** The Fulani is a pastoral community found in the Sahel region of West Africa. They are found in the drier parts of Northern Nigeria and other parts of Jos plateau. They keep large herds of cattle as their wealth. They use scouts with horses to search for water and pasture. **The correct answer is A.**

33. **Reasoning:** The Government supports people with special needs in the society by providing them with equal opportunities as others, creating friendly environment and creating positive altitude among society member. **The correct answer is D.**

34. **Reasoning:** Most of Mountains in Africa are volcanic . They include Elgoni, Kenya, Kilimanjaro, Ahaggar, Tibesti, Meru, Muhavura, Nyamtagira, Mfumbiro and others. Mau and Aberdare , Usambara, Pare, Rwenzori and Danakil Alps are block mountains. **The correct answer is D.**

35. **Reasoning:** In a free range method of rearing poultry, the birds are set free to search for food. In battery system, the birds are kept in cages. In deep liter system, the birds are kept in a big room with water and food provided. In fold system, the birds are kept in movable structures. **The correct answer is B.**

36. **Reasoning:** The main effect of HIV and AIDS is that, it lowers life expectancy in a community. It also leads to slow population growth. **The correct answer is A.**

37. **Reasoning:** Terracing is a method of soil conservation carried out in sloppy cultivated areas. **The correct answer is C.**

38. **Reasoning:** The following game parks are found in the respective countries; Seleous-Tanzania, Black river gorges-Mauritius, Kruger national park-South Africa, Hwango in Zimbabwe. **The correct answer is B.**

39. **Reasoning:** The kingdom of old Ghana grew strong because of the Trans-Saharan trade. It had a strong standing army and able king. It fell after the attack by the Almoravids(Arabs from North). **The correct answer is D.**

40. **Reasoning:** The main means of transporting goods in the African regional trading blocs is road transport. It is flexible and the most widespread means of transport. Most of the goods are agricultural. Regional trading blocs are also found among neighbouring countries. **The correct answer is B.**

41. **Reasoning:** Mekatilili wa Menza was a Giriama leader who led the community to resist the British colonial rule. She was arrested and deported to Gusii highlands where she miraculously managed to go back to coast. **The correct answer is B.**

42. **Reasoning:** The evolution theory of human origin was discovered by sir Charles Darwin. He wrote a book called the Origin of Species in 1859. It explains how the present man evolved from less to more intelligent man gradually. **The correct answer is B.**

43. **Reasoning:** In Traditional African Society, food was stored in calabashes, gourds, pots, granaries, baskets and hanging ropes. **The correct answer is C.**

44. **Reasoning:** In Kenya, flowers are grown in Athi river, Limuru, Timau, Eldoret Naivasha, Kiambu, Thika and Murang'a . They are exported to Europe by air transport because they are highly perishable. **The correct answer is A.**

45. **Reasoning:** In Traditional African Society, the clan was made up of people that shared a common ancestor. It created the sense of belonging, it promoted kinship ties (relationships) and was the custodial of the traditional laws and taboos. **The correct answer is B.**

46. **Reasoning:** In Traditional African Community, people are encouraged to marry to ensure the continuity of the clan through procreation. **The correct answer is D.**

47. **Reasoning:** Rapid population growth is mainly caused by improved medical care that reduces the infant mortality rate among other factors such as favourable climate, polygamy , early marriages, low mortality rate, preference of a certain sex, urbanization and others. **The correct answer is D.**

48. **Reasoning:** Budalangi is a plain region in Western Kenya which experiences seasonal flooding by water from R. Nzoia. **The correct answer is C.**

49. **Reasoning:** Improved modern forms of communication has led to increased trading activities in Africa and the world. **The correct answer is A.**

50. **Reasoning:** Patriotism is ones love for his/her own country. This is shown by obeying the laws of the land and being ready to protect the land at all costs. **The correct answer is A.**

51. **Reasoning:** L.Tana in Ethiopia is the source of Blue Nile. It was formed by lava damming process. This happens when lava flows and blocks a river.**The correct answer is C.**

52. **Reasoning:** Weather is the day to day condition of the atmosphere of a place. Climate is the average and general weather conditions which have been recorded for a period not less than 35 years. **The correct answer is A.**

53. **Reasoning:** AU (African Union) was formed in the year 2002 to deal with emerging issues among the African states. **The correct answer is B.**

54. **Reasoning:** Semitic speakers are mainly found in Eastern Africa. They include; Falasha, Bagara, Gurhe, Afar, Issa and Eritreans, Ahmaras Nubians and Tigre. **The correct answer is A.**

55. **Reasoning:** Challenges facing tourism in Africa include; pollution in game parks and reserves, high entry fees, poor transport network, insecurity among others. Conservation of wildlife promotes tourism because wildlife is the main tourist attraction in Africa. **The correct answer is C.**

56. **Reasoning:** Coastal towns were established by Arab traders before the coming of the Europeans. They are the major sea ports in Eastern Africa. The imported crude oil is refined at the ports after it has been received. **The correct answer is D.**

57. **Reasoning:** The constitution of Kenya guarantees all the citizens of their rights. The human rights are found in chapter 4 of Kenya's constitution. **The correct answer is D.**

58. **Reasoning:** Pipeline is the most convenient means of transporting liquid commodities. However, it has some disadvantages; it can only transport one commodity at a time. It has reduced employment opportunities. **The correct answer is B.**

59. **Reasoning:** It is a political right of every adult Kenyan to register as a voter to be able to participate in general elections. **The correct answer is C.**

60. **Reasoning:** The arm of the National Government that presides over cases in the judiciary. It is headed by the chief Justice. **The correct answer is C.**