THE SIPRO PRE-PLE SET II 2024

INTEGRATED SCIENCE

Time Allowed: *2 Hours 15 Minutes*

	EMIS No.						Personal No.		
Index No.									

Candidate's Name: _____

Candidate's Signature: _____

EMIS No. _____

District ID: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections: A and B.
2. Section A has 40 questions (40 Marks).
3. Section B has 15 questions (60 Marks).
4. Attempt all questions in both sections. All answers to both sections A and B. must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or *ink*. Only diagrams and graph work must be done in *pencil*.
6. Unnecessary *alteration* of work will lead to loss of marks.
7. Any *handwriting* that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the boxes indicated:

"FOR EXAMINER'S USE ONLY"

For Examiner's Use Only;

Qn No.	MARKS	INITIALS
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
Total		

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SECTION A: 40 MARKS

Questions **1** *to* **40** *carry* **one** *mark each.*

1. Name the vector that spreads sleeping sickness among people.

_____

2. How does mulching control weeds in the garden?

_____

3. Give a reason why crop farmers should carry out weather forecasting.

_____

4. State **one** way of administering first aid to a fractured victim.

_____

5. Give any **one** reason why an earthworm dies when oil is poured on its body.

_____

The diagram below shows a common equipment used on a cattle farm. *Study and use it to answer questions 6 and 7.*

6. Identify the above equipment used by cattle farmers.

_____

7. How is the above equipment adapted to its function?

_____

8. Name any **one** nitrogenous compound found in urine.

_____

9. Mention any **one** similarity between the body structure of an insect and that of an arachnid.

_____

10. Name the type of pit latrine which requires a lid on its squat hole.

_____

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11. State the main cause of constipation in human beings.

_____

12. Mention any **one** lifeskill that can safeguard the youth against drug abuse.

_____

13. Give **one** reason why cooking pans have handles made of insulators.

_____

14. State the importance of soaking clothes before washing them.

_____

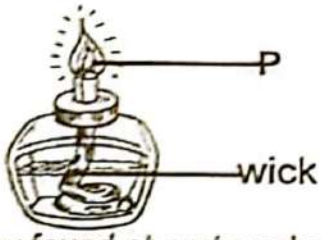
15. Write any **one** danger of swamp drainage.

_____

16. Mention the intestinal worm that causes itching around the anus at night.

_____

The diagram below shows a burning candle. *Study and use it to answer questions 17 and 18.*



17. Give **one** form of energy found at part marked with letter P.

_____

18. What type of change takes place when the wick of the candle burns?

_____

19. State any **one** way domestic animals increase chances of spreading diseases at home.

_____

20. Why is the rate of transpiration in banana plants higher than that in a bean plant?

_____

_____

21. Give any **one** characterisitic of images formed in a periscope.

_____

22. Mention any **one** product obtained from practising apiculture.

_____

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23. Give any one way of promoting food security in a home.

_____

24. State any one way of increasing the efficiency of wedges as simple machines.

_____

25. Why should a COVID-19 victim be isolated from healthy people?

_____

26. How do plants benefit from bees visiting them?

_____

27. State the method of planting which controls wastage of seeds.

_____

28. Mention any one vaccine administered to babies at birth.

_____

29. What will happen to the pitch of a guitar if its strings are tightened?

_____

30. In which one way can a school health committee solve the problem of a bad smell in a latrine?

_____

31. State any one way pulleys can be useful in a school.

_____

32. Apart from free range system, give any other method of rearing poultry in Uganda.

_____

33. State the behaviour of a piece of paper when placed in a basin full of water.

_____

34. Name the fungus which grows on bread that has overstayed.

_____

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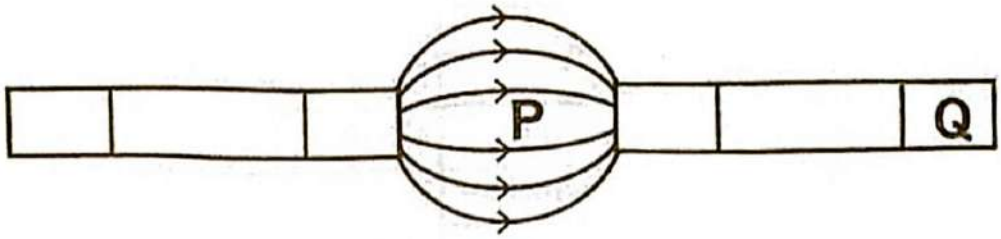
The diagram below shows two bar magnets. *Study and use it to answer questions 35 and 36.*



35. Identify the pole marked with letter **Q**.

_____

36. Name the force which exists at point marked **P**.

_____

37. Name the bone which joins the elbow to the shoulders.

_____

38. How important is pricking out to crop farmers?

_____

39. Why should the floor of a goat shed be made with a slanting surface?

_____

40. Why do health workers screen blood before transfusion?

_____

SECTION B: 60 MARKS

Questions **41** *to* **55** *carry* **four** *marks each.*

41. a) State any **two** examples of chemical changes which can occur in a school kitchen.

i) _____

ii) _____

b) Give any **two** ways chemical changes are important to people in the environment.

i) _____

ii) _____

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42. **The table below shows childhood immunisable diseases, vaccines and the body site of administration.** *Complete it correctly.*

Disease	Vaccine	Site of administration
Tuberculosis	i) _____	Right upper arm
ii) _____	Polio vaccine	Mouth
Measles	Measles vaccine	iii) _____
Hepatitis	iv) _____	Left upper thigh

43. a) Which type of soil has the following characteristics?

i) lowest drainage _____

ii) lowest capillarity _____

b) How are fungi useful during soil formation?

_____

c) State the reason why materials are changed from one kit to another when making compost manure.

_____

44. a) State any two ways you can care for vulnerable people in your community.

i) _____

ii) _____

b) Give the meaning of the following terms;

i) invalid _____

_____

ii) convalescent _____

_____

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45. **The diagram below shows an activity commonly done by crop farmers in rural areas.** *Study and use it to answer the questions that follow.*

a) Identify the method of separating mixtures shown in the diagram above.

_____

b) Give any **two** examples of mixtures that can be separated using the above method.

i) _____

ii) _____

c) State the importance of wind in the above method.

_____

46. a) Write any **two** primary sex characteristics in both male and female adolescents.

i) _____

ii) _____

b) Why are adolescents advised to bathe regularly?

_____

c) State any **one** danger of teenage pregnancies to adolescents.

_____

47. a) Why does the level of water fall when an object immersed in water is removed?

_____

_____

b) Give any **one** object whose volume can be obtained by getting the product of the base area and its height.

_____

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c) Calculate the volume of an object whose mass is 40g and density is 8g/cc. *(2 marks)*

48. a) Mention any **two** examples of chicken reared mainly for meat production.

i) _____

ii) _____

b) Write any **two** poultry management practices that reduce vices among poultry

i) _____

ii) _____

49. The table below shows different organisms. *Study and use it to answer the questions that follow.*

O	P	Q	R
centipede	tick	lobster	locust

a) Identify the group of invertebrates to which all the above organisms belong.

_____

b) Mention **one** other organism that can be grouped with;

i) animal **O** _____

ii) animal **P** _____

c) How is organism marked **O** similar to organism marked **R** in the way they breathe?

_____

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50.a) Mention any **two** factors considered when choosing trees to plant in Agroforestry.

i) _____

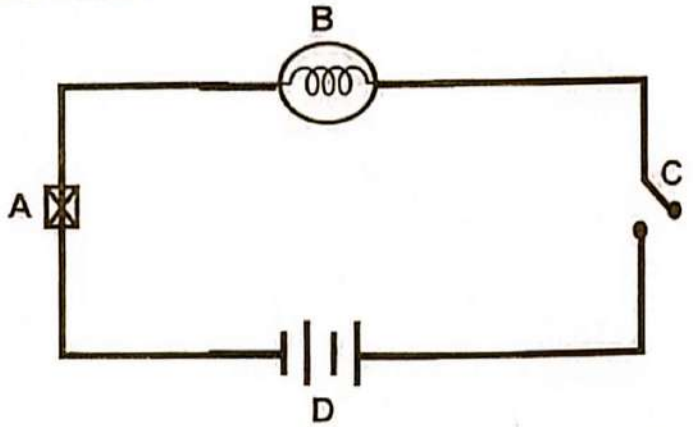
ii) _____

b) State any **two** advantages of practising agroforestry to a crop farmer.

i) _____

ii) _____

51.The diagram below shows an electric circuit. *Study and use it to answer the questions that follow.*



a) Identify the parts of an electric circuit labelled with letters **A** and **C**.

i) **A** _____

ii) **C** _____

b) Give the importance of the part labelled **D** in the electric circuit above.

_____

c) State any **one** energy change that can take place at part **B** when **C** is closed.

_____

52.a) Write any **two** dangers of living in a dusty environment.

i) _____

ii) _____

b) Mention any **two** activities people can do to reduce dust in the environment.

i) _____

ii) _____

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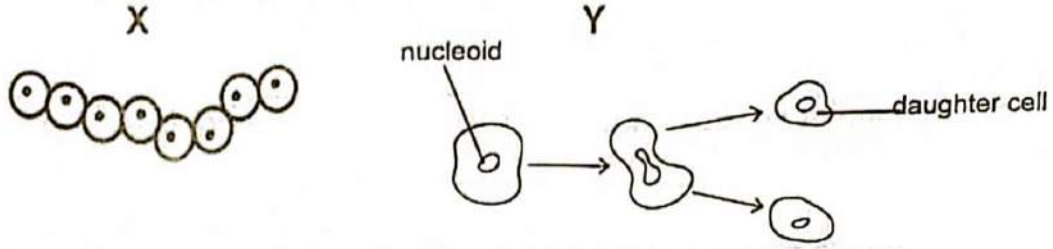
53.The diagrams below are of two modes of reproduction. *Study and use them to answer the questions that follow.*



a) Name the modes of reproduction marked with letters **X** and **Y.**

i) X _____

ii) Y _____

b) Name **one** organism that reproduces using the reproduction mode labelled Y.

_____

c) Which method of making alcohol involves the action of organism that reproduces by mode labelled **X**?

_____

d) How is reproduction an important process in organisms?

_____

54.a) Name the breeding place for a blackfly.

_____

b) Mention the disease spread by blackflies to people.

_____

c) Give **two** ways in which the spread of the disease mentioned in (b) above can be controlled.

i) _____

ii) _____

55. Table **A** shows garden tools and table **B** shows their uses in a wrong order.

A: Garden tools	B: Uses
garden fork	transplants seedlings
sickle	mixes and turns manure.
trowel	helps in spacing seedlings.
measuring tape	harvests cereals

Select from the above, the correct uses of the garden tools and write them in the spaces provided:

i) garden fork _____

ii) sickle _____

iii) trowel _____

iv) measuring tape _____

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THE SIPRO PRE - PLE SET II 2024

MATHEMATICS

Time Allowed: *2 Hours 30 Minutes*

	EMIS No.						Personal No.		
Index No.									

Candidate's Name: _____

Candidate's Signature: _____

EMIS No. _____

District ID: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections: **A** and **B**.
2. Section **A** has **20** questions **(40 Marks)**.
3. Section **B** has **12** questions **(60 Marks)**.
4. Attempt all questions in both sections. All answers to both sections **A** and **B** must be written in the spaces provided.
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Total		

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SECTION A: 40 MARKS

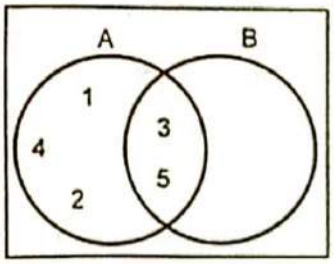
Attempt **all** questions in this section.

Questions **1** *to* **20** *carry* **two** *marks each.*

1. **Work out:** 97 – 15

2. **Simplify:** 5ab + 2ab – 3ab

3. In the venn diagram below, find n(B - A)



4. Write **CDX** in Hindu-Arabic numerals.

5. Cooking oil is sold in **25ml** sackets. Nyapendi bought **0.5 litres** of cooking oil. How many sackets did she buy?

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6. Matayo took 19 days weeding his cassava garden. He completed weeding the garden on Friday. What day of the week did he start weeding his garden?

7. Express **300** as a product of its prime factors.

8. Using a ruler, a pencil and a pair of compasses only, construct an angle of 67.5^0.

9. Aminah is **7 years** old and Liz is **12 years** old. How old will Aminah be when Liz is 18 years?

10. Convert 320_{five} to base ten.

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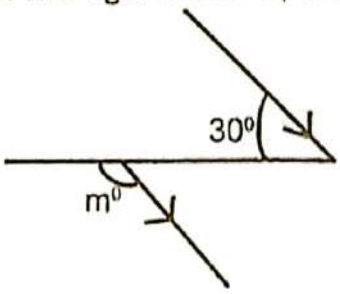
11. Express **40 centigrams** as a percentage of **2 grams**.

12. In the figure below, find the value of **m** in degrees.



13. Using digits 3, 8 and 4, form two, 3-digit numbers divisible by 6.

The smallest number divisible by 6	_____
The biggest number divisible by 6	_____

14. Solve: $2h - (3 - h) = 9$.

15. Mawa sold a shirt at sh.18,000 and made a profit of sh. 2,000. Calculate his percentage profit.

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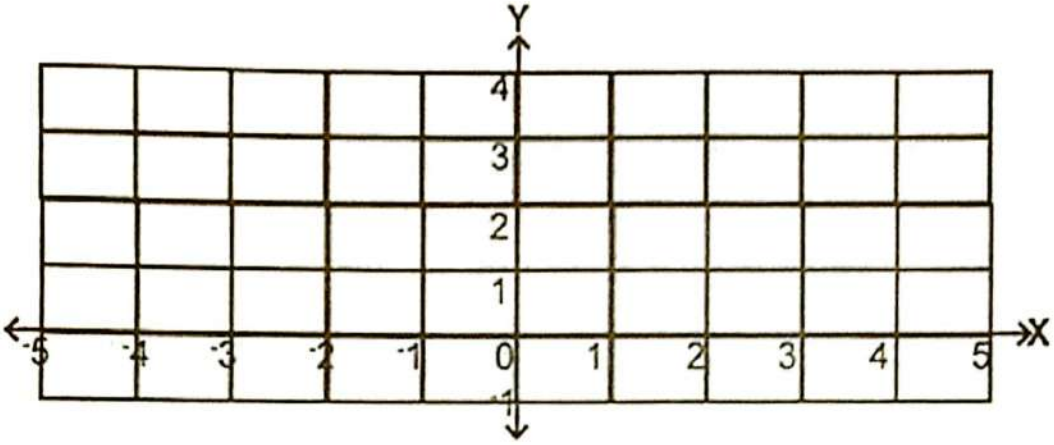
16. Aidah's watch is faulty. When the correct time is 6:40 a.m, Aidah's watch reads 7:10 a.m. What is the correct time if the time by Aidah's watch is 9:00 a.m?

17. Plot the points **B(0, ⁺3)** and **D(⁺2, -1)** on the coordinate graph below;



18. The temperature of water ice was -19⁰c. When the water was heated, the temperature rose to -5⁰c. What was the rise in temperature?

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19. **Work out:** $\frac{3}{4} \div 4$.

20. The average mass of 6 boys in a group is 40kg. Two boys who weigh 40kg and 20kg leave the group. Find the total mass of the remaining 4 boys.

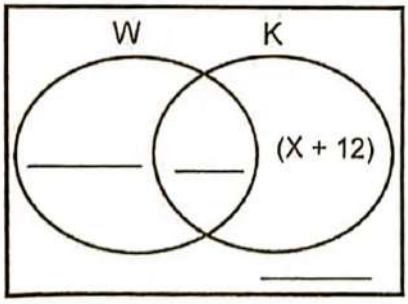
SECTION B: 60 MARKS

Attempt **all** questions in this section.

Marks for **each part** *of the question are* **indicated** *in the brackets.*

21. In a class, 30 pupils enjoy teacher Wasswa's lesson (W), 29 enjoy teacher Kato's lesson (K), 13 of the pupils who enjoy teacher Wasswa's lessons also enjoy teacher Kato's lessons, and 'x' pupils enjoy other teachers' lessons.

(a) Complete the venn diagram below. *(03 marks)*



(b) Find the value of **x**. *(02 marks)*

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(c) How many pupils do not enjoy teacher Kato's lessons? *(01 mark)*

22. The table below shows how Mr. Oguti bought his items from the shop.

(a) Complete the table below. *(05 marks)*

Items	Quantity	Unit price	Total cost
Peas	$2\frac{1}{2}$ kg	Sh. 4,000 per kg	Sh .....
Cooking oil	..... litres	Sh. 8,000 per litre	Sh. 6,000
Sugar	$3\frac{1}{4}$ kg	Sh. ..... per kg	Sh. 13,000
Mushrooms	1,500g	Sh. 2,000 per kg	Sh. .....
Total bill			Sh. .....

(b) If he had sh. 40,000, how much did he remain with?

23. At the bus park, buses travelling to Arua and Bushenyi leave after every 40 minutes and 50 minutes respectively.

(a) After how long do the two buses leave together?

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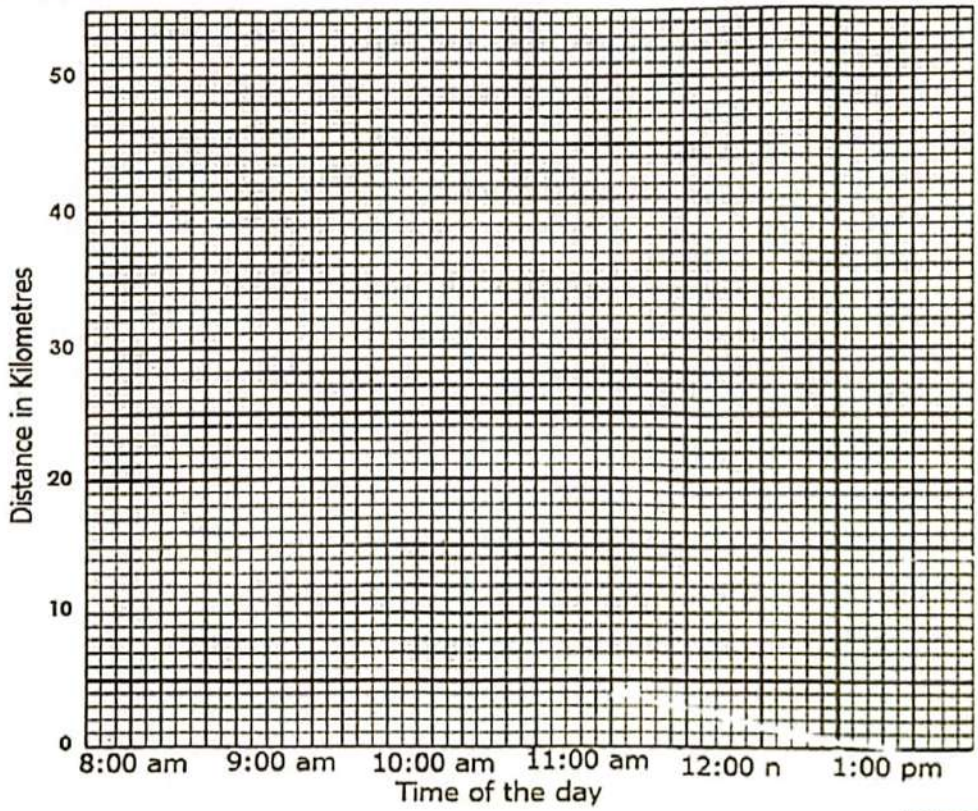
(b) The first buses leave together at 6:00 a.m. At what time do the buses leave together again? *(03 marks)*

24. *Malaika started riding his bicycle from town A to town C through town B at 8:00 a.m. He rode from town A to town B at a speed of 15 km/h for 2 hours and then rested for $\frac{1}{2}$ an hour. From town B, he rode to town C a distance of 20km at a constant speed of 8km/h.*

On the graph given below, draw a travel graph to show Malaika's journey. *(05 marks)*



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25. A cylindrical tin of diameter 28cm and height 20cm is full of paraffin. How many litres of paraffin will remain in the tin after using 3,320 cm^3 of the paraffin? $\left(\text{Use } \pi \text{ as } \frac{27}{7}\right)$. *(04 marks)*

26. (a) Solve for m: $\frac{3m}{4} + 7 = 40$. *(02 marks)*

(b) Solve the inequality below and write the solution set.
$6(x + 3) > 12$. *(03 marks)*

27. (a) With the help of a ruler, sharp pencil and a pair of compasses only, construct a square PQRS whose diagonals measure 7cm. *(04 marks)*

(b) Measure the length QR of the square: _____ *(01 mark)*

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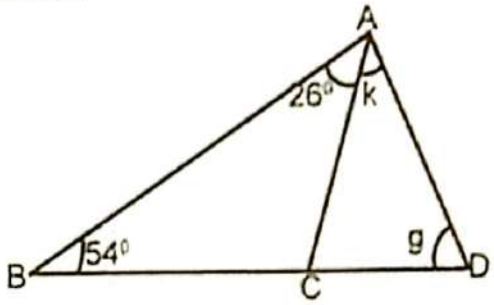
28. The average of 60, (2p – 18), 81 and p is 75.

(a) Find the value of **p**. *(03 marks)*

(b) Find the range of the scores. *(02 marks)*

29. In the figure below, angle ABC = 54°, BAC = 26° and angle BCA is twice angle BAD.



Find the size of;

(a) angle marked **k**. *(03 marks)*

(b) angle marked **g**. *(02 marks)*

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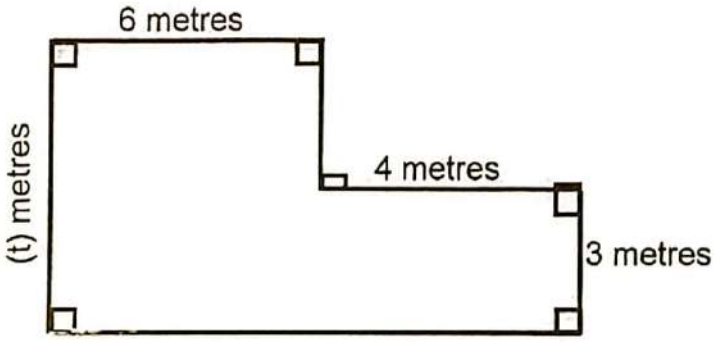
30. When a shoe seller sells a pair of shoes for sh.81,000, he makes a loss of 10%.

(a) Calculate the price at which he buys the pair of shoes. *(02 marks)*

(b) At what price should he sell the pair of shoes in order to gain 5%? *(02 marks)*

31. The figure below shows Matilda's flower garden. The area of the flower garden is $60m^2$. *Study the figure carefully and use it to answer questions (a) and (b) that follow.*



(a) Find the value of **t**. *(03 marks)*

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(b) Find the perimeter of the flower garden. *(02 marks)*

32. **The timetable below is of a flight by a plane.** *Study and use it to answer the questions that follow.*

AIRPORT	ARRIVAL	DEPARTURE
V		3 : 15 p.m
W	3 : 30 p.m	4 : 40 p.m
X	5 : 35 p.m	6 : 10 p.m
Y	6 : 25 p.m	

(a) Express the time the plane left airport **V** to a 24-hour clock system. *(02 marks)*

(b) Chandia arrived at airport **X**, 30 minutes before the plane left airport **W**. For how long was Chandia at airport **X**, before leaving for airport **Y**? *(02 marks)*

(c) If the speed of the plane between airport **X** and airport **Y**, was 640 km/h, what distance did the plane cover between airport **X** and airport **Y**. *(02 marks)*

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THE SIPRO PRE-PLE INTEGRATED SCIENCE SET II MARKING GUIDE - 2024

NO	CLASS LEVEL	CORRECT RESPONSE	WRONG RESPONSE	MARKING POINT	TECHNICAL ADVICE
1	P.3	Tsetse fly	Black fly	Should be tsetse fly.	Take learners through different vectors.
2	P.4	Mulches prevent weeds from getting sunlight / Mulches block weeds from getting sunlight.	Weeds are not in the garden.	Should be cutting off the supply of sunlight.	Guide them through ways mulching helps in the garden.
3	P.4	To plan for farm activities / To know when to plant and harvest.	To know the farm activities.	Should be planning for the farm.	Discuss with learners the different weather instruments and their functions.
4	P.2/P.4	Tying splints around the fractured part/ Carrying a person on a stretcher.	To reduce pain.	Should be tying a splint around the fractured part.	Take them through First Aid giving for the different accidents.
5	P.6	Oil blocks its breathing organ which is the moist skin / The earthworm stops breathing since the moist skin is blocked by oil.	Oil burns the earthworm.	Should be blocking the breathing organ.	Guide candidates through the different breathing organs in the different organisms.
6	P.6	Strip cup	Lactometer	Should be strip cup.	Take them through the different farm tools.
7	P.6	It has a wire mesh for filtering blood clots and pus in milk.	It has a wire mesh.	Complete adaptation with a function.	Take learners through the use of the different farm tools.
8	P.7	Uric acid / Excess mineral salts / Urea	Bile pigments	Should be a component of urine.	Guide learners through the components of the different excretory products.
9	P.6	Both have segmented bodies / Both have jointed legs / Both lack a backbone./ Both have an exo skeleton.	Both have three main body organs.	Should be a characteristic of arthropods.	Guide them through arthropods and insects.
10	P.6	Ordinary / Conventional pit latrine	Ventilated Improved Pit latrine.	Should be ordinary / Conventional pit latrine.	Guide candidates through latrines and their features.
11	P.5	Lack of roughages in one's diet.	Is the difficulty in defaecation.	Should be a cause of constipation.	Take them through causes of digestive disorders.
12	P.6	Being assertive / Critical thinking / Good decision making / Self-awareness / Effective communication/ Focus and self-control / Self-confidence / Coping with stress / Creative thinking / Problem solving.	Feeding on a balanced diet / Doing regular body physical exercises.	Should be a life skill not a life style.	Guide learners through the difference between life skills and life styles.
13	P.5	To prevent the user's hand from being burnt.	They are poor conductors of heat.	Should be importance of using poor conductors of heat.	Guide candidates through the use of insulators in our daily life.

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14	P.6	It dissolves stains / It softens clothes for easy washing / Loosens dirt in the clothes.	It is a good practice.	Should be how good it is to soak clothes before washing.	Take them through the steps involved in cleaning clothes and their importance.
15	P.3	It leads to reduced rainfall / Leads to floods / Leads to displacement of aquatic animals.	It leads to soil erosion.	Specify the dangers of destroying swamps.	Guide them through reasons why people have drained swamps.
16	P.4	Pinworms	Hookworm / Tapeworms	Should be pinworms.	Take learners through intestinal worms.
17	P.5	Heat energy / Light energy	Heat energy changes to light energy/ Chemical energy changes to heat energy.	Should be a form of energy change.	Guide them through forms of energy and energy changes.
18	P.5	Chemical change	Physical change	Should be chemical change.	Take candidates through the different changes in the environment.
19	P.4	Domestic animals have fur in which vectors that spread germs hide / Domestic animals are hiding places for vectors.	Domestic animals destroy property at home.	Should be a way domestic animals increase chances of spreading germs that cause diseases.	Guide them through ways domestic animals increase chances of spreading diseases.
20	P.4	A banana plant has bigger leaves to carry out transpiration at a high rate while a bean plant has small leaves that reduce transpiration rate.	They have big leaves.	Correct and complete comparison.	Take candidates through factors that affect the rate of transpiration.
21	P.7	The images are upright / Laterally inverted / Images are of the same size as the object / Images are virtual / Image distance from the mirror is the same as object distance from the mirror.	The images are real, inverted and diminished.	Should be a characteristic of images formed in plane mirrors.	Guide them through types of mirrors and types of curved mirrors.
22	P.5	Honey / Propolis / Bee pollen / Beeswax / Bee venom	Nectar	Should be a product got from bees.	Take candidates through bees and their products.
23	P.4	Planting disease resistant species of crops / Early planting of crops / Storing food in food stores / Preserving food / Planting perennial crops.	Laziness/ Poverty	Should be a way of promoting food security.	Guide them through ways of promoting food security and causes of food insecurity.
24	P.7	Sharpening them / Cleaning them after use / Oiling the moving parts before use / Painting them.	Increasing the angle of inclination.	Should be improving the efficiency of wedges.	Guide pupils through improving the efficiency of all simple machines.
25	P.3	It prevents contact of the sick person with healthy ones/ Prevents easy spread of COVID-19.	It is a good thing.	Should be how isolation prevents spread of diseases among people.	Take learners through control measures of animal diseases.

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26	P.4	Flowers of plants get pollinated / Bees pollinate flowers.	They get nectar.	Should be plants to benefit.	Guide them through benefits of plants from bee visits.
27	P.4	Row planting method	Broadcasting / Casting method	Should be a method of planting which controls wastage of seeds.	Take learners through methods of planting seeds.
28	P.5	Polio vaccine / BCG vaccine	DPT vaccine	Should be a vaccine given to babies at birth.	Guide learners through different ages and the vaccine.
29	P.6	It will increase / It will be high.	It would reduce.	Should be high.	Guide them through increasing and reducing pitch by different musical instruments.
30	P.5	By smoking the latrine / By scrubbing the floor / By putting naphthalene balls.	They clean the latrines.	Should be a way to chase houseflies and reducing the bad smell.	Take candidates through ways of controlling bad smell in pit latrines.
31	P.7	They are used to hoist flags on flag masts / Raising building materials / Towing broken down vehicles (school vans).	They are useful.	Specify how useful they are.	Guide them through the uses of pulleys at school.
32	P.5	Deep litter system / Battery system/ Cage system / Pen system / Fold / Ark system.	Tethering method	Should be a method of rearing poultry.	Guide candidates through the methods of rearing poultry.
33	P.5	It will float / It floats / It will remain on top.	It will sink.	Should be floating.	Take them through sinking and floating.
34	P.5	Mould / Mucor	Mushroom	Should be mould.	Guide candidates through effects of each fungus.
35	P.7	Q – North Pole	South pole / N- Pole	Should be North pole	Guide learners on movement of magnetic lines of force.
36	P.7	Magnetism / Magnetic force	Force of repulsion	Should be attraction.	Take candidates through magnetic poles.
37	P.7	Humerus	Femur	Should be humerus.	Guide them through names of different bones.
38	P.4	Creates enough space among seedlings / Prevents competition for sunlight / For carbon dioxide/ sunlight and soil / Controls easy spread of crop diseases.	It is good to crop farmers.	The importance of pricking out.	Guide learners through crop growing activities.

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39.	P.5	To allow easy flow of urine and goat droppings.	To be clean.	Easy flow of droppings and urine.	Guide them through care given to domestic animals.
40	P.6	To prevent easy spread of blood-related diseases like HIV/ AIDS Infection.	To get clean blood.	Should be control of the spread of infectious diseases.	Take candidates through blood screening.
			SECTION: B		
41	P.5	a) Rusting / Fermentation / Respiration/Burning/ Decomposition	Freezing / Evaporation / Condensation	Should be a change that forms new substances.	-Guide candidates through changes that take place in the environment. -Take them through the importance of the different changes that take place in the environment.
		b) They help in making charcoal / Help in making alcohol / They enable them to get food/ Help in soil formation.	They change the properties.	They should be of importance of chemical changes.	
42	P.5	i) BCG vaccine ii) Polio iii) Left upper arm iv) Hep B vaccine	Polio injection / Right upper arm/ BCG vaccine	Interchanged concepts	Guide them through not interchanging concepts.
43	P.5	a) (i) Clay soil (ii) Sand soil	Sand soil / Loam soil	Should be types of soil.	-Take learners through types of soil and soil layers. -Guide them through steps followed when making composite manure.
		b) They decompose organic matter to form humus / Form humus.	They grow in soil.	Importance of fungi in the soil.	
		c) Qn 43c) (one pit to another) To allow proper decomposition of materials.	To allow more humus.	It should be correct reason for changing.	
44	P.5	a) Feeding them on a balanced diet/ Washing for them clothes / Cooking for them / Feeding them.	Giving them alcohol to drink.	Should be a good way of caring for vulnerable people.	-Take learners through care for vulnerable people. -Guide them through invalids and convalescents.
		b) (i) Invalid is a person who has been weakened by a disease/ Is a person with prolonged illness / A person who is very sick.	Is a person recovering from illness.	Should be a person weakened by disease.	
		(ii) A convalescent is a person recovering from an illness.	Is a person who has been weakened by sickness.	Should be a person who is recovering from an illness.	
45	P.5	a) Winnowing	Grinding	Should be winnowing.	-Guide candidates through activities done using wind. -Take learners through examples of seeds separated by winnowing. -Guide them through energy resources and their uses.
		b) Millet mixed with husks / Sorghum / Rice / Beans with husks / Soya with husks / Beans with husks / Peas with husks	Tomato seeds	Should be a mixture of husks and seeds that can be separated using winnowing.	
		c) Wind blows away the husks from seeds.	Wind helps in winnowing.	Should be the exact way wind helps in winnowing.	
46	P.6	a) Production of hormones / Production of gametes (reproductive cells).	Sweat glands become active.	Similar primary sex characteristics.	-Guide candidates through difference between puberty and adolescence.

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		b) To prevent bad body smell or odour/ To help in controlling skin diseases.	To look attractive.	Should be scientific reason.	-Guide them through menstruation and ovulation.
		c) It can lead to school drop outs / It can lead to death during birth / Leads to self-neglect.	It can lead to STDs.	It is about pregnancy.	-Take them through challenges of adolescents. -Take them through dangers of teenage pregnancy to adolescents.
47	P.5	a) To take up the volume that was being occupied by the object.	Water is less dense than that object.	Should be to take up the space that was occupied by the object.	-Take learners through displacement. -Guide them through objects that are irregular. -Guide them through calculation and formulae.
		b) A brick / Cylinder / A rectangular box / Cuboid / Cube	Stone / Broken bottle	Should be an object with a proper shape.	
		c) Volume = Mass / Density $V = \frac{\cancel{40g}^{5}}{\cancel{8}g/cc_{1}}$ V = 5cc	V = Mass x Density V = 40g x 8g/cc V = 320cc	Follow the steps and use the correct formula.	
48	P.5	a) Light Sussex / Sykes / Cornish White / Jersey giant / Orpington / Plymouth Rock	Ancona / Minorea / Brown egger	Should be chicken kept for meat production.	-Guide pupils through keeping poultry. -Take them through poultry management practices.
		b) Debeaking / Putting few birds in a poultry house / Putting laying boxes in dark corners / Hanging green vegetables	Regular vaccination / Culling	Control of vices among the poultry.	
49	P.6	a) Arthropods	Arachnids	Correct identification	-Guide candidates through invertebrates. -Guide them through examples of arthropods. -Take them through breathing of arthropods.
		b) (i) Millipede (ii) Mite / Scorpion / Spider	(i) Housefly (ii) Millepede		
		c) Both breathe through spiracles.	Both breathe through book lungs.	Should be a similarity in the way they breathe.	
50	P.7	a) Maturity rate / Resistance to pests / Resistance to harsh weather and poor soils / Type of wood obtained.	Height of the tree.	Should be factors that enable choice for a tree breed.	-Guide learners through agro-forestry. -More guidance about crop rotation.
		b) A crop farmer gets double income / Allows maximum usage of land.	Trees control soil erosion / Trees provide fruits to people.	How a crop farmer benefits from the planting.	

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51	P.7	a) (i) A – fuse (ii) C - switch	Switch Fuse	Interchanged concepts.	-Should avoid interchanging concepts. -Guide learners through parts of an electric circuit. -Guide them through forms and changes of energy.
		b) To produce electricity / To provide electric current.	To break the circuit at one's will.	Should be role of dry cells.	
		c) Electrical energy changes to heat energy / Heat energy changes to light energy.	Heat energy / Light energy	Should be energy change not form of energy.	
52	P.4	a) It leads to food contamination / Leads to lung diseases / Leads to jiggers.	Makes the environment dirty.	Effects of living in a dusty environment.	-Guide candidates through a health survey. -Revise ways of living in a healthy environment and the steps involved therein.
		b) Regular watering of the environment / Cementing the environment / Planting trees / Covering the floor with cow dung.	Removing dust / Dusting the furniture.	Reducing dust in the environment.	
53	P.5	(i) X – Budding (ii) Y – Cell division / binary fission	(i) spores (ii) budding	Correct modes of reproduction.	-Guide learners through types of reproduction and the modes of reproduction as well.
		b) Bacterium / Amoeba / Paramencium	Fungi	Organisms that reproduce by cell division.	
		c) Fermentation	Evaporation	Correct name of process.	
		d) Reproduction helps organisms to multiply in number.	It helps plants to grow.	Increase in number.	
54	P.3/P.4	a) Fast flowing water	Water bodies	Should be fast flowing water.	-Guide learners through the different breeding places for most vectors. -Take them through the breeding places for the different vectors. -Guide them through vectors and the diseases they spread.
		b) River blindness / Onchocerciasis	Night blindness	Should be River blindness.	
		c) By spraying black flies with insecticides / By regular washing of the eyes / Avoid sharing face towels.	By wearing a face mask.	Should be a control measure for the spread of river blindness.	
55	P.3	i) Turns manure. ii) Harvests cereals. iii) Transplants seedlings. iv) Measures length of the garden.	i) Transplants seedlings ii) Digs rocky areas iii) Harvests cereals iv) Turns manure	Correct uses of given garden tools.	Revise using question approach about the garden tools. You can also use the school garden for a practical approach.

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THE SIPRO PRE - PLE SET II 2024

SOCIAL STUDIES WITH RELIGIOUS EDUCATION

Time Allowed: *2 Hours 15 Minutes*

	EMIS No.						Personal No.		
Index No.									

Candidate's Name: _____

Candidate's Signature: _____

EMIS No. _____

District: ID _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections: A and B.
2. Section A has 40 questions (40 Marks).
3. Section B has 15 questions (60 Marks).
4. Attempt all questions in both sections. All answers to both sections A and B must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or ink. Only diagrams and graph work must be done in pencil.
6. Unnecessary alteration of work will lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the boxes indicated.

"FOR EXAMINER'S USE ONLY"

For Examiner's Use Only:

Qn. No.	MARKS	INITIALS
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
Total		

Please turn over

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SECTION A : 40 MARKS

Questions **1** *to* **40** *carry* **one** *mark each.*

1. Give any **one** way swamps are important to people who make craft products.

_____

2. Mention any **one** landlocked country that shares borders with East Africa.

_____

3. How do police officers help to reduce mob juctice in the community?

_____

4. Why did some African countries take long to attain independence from the colonialists?

_____

5. Draw a symbol of a ferry in the space below.

6. Give **one** reason why P.7 candidates should listen to advice from their teachers and parents.

_____

7. How can fresh fish at home be kept for days without going bad?

_____

8. Why did explorers rename some physical features in Africa?

_____

9. Give the meaning of the term national population census.

_____

_____

10. How can a war in Uganda's neighbouring country affect her economic development?

_____

11. Give any **one** way a national constitution promotes good governance in a country.

_____

12. State any **one** way in which the Commonwealth of Nations promotes the social welfare of her member citizens.

_____

13. Mention any **one** recommendation of the 1900 Buganda Agreement.

_____

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14. How does South Africa benefit from having access to both the Indian Ocean and Atlantic Ocean?

_____

15. Name the highest volcanic mountain in Tanzania.

_____

16. State any **one** problem that resulted from the missionary activities in Africa.

_____

17. Give any **one** way Ugandans show respect for the national symbol below.

_____

18. What factor makes DRC to have different vegetation from that of Libya?

_____

19. Write any **one** advantage members of an extended family have over those in a nuclear family.

_____

_____

20. State any **one** way the government can promote trade in rural areas of Uganda.

_____

21. How did the organisation of Pan African Conferences help in the struggle for independance in Africa?

_____

22. Why is it important for children to keep family secrets?

_____

23. Give any **one** political reason for the construction of the Kenya-Uganda railway.

_____

24. State any **one** way mobile phones have reduced on the number of people who go to banks.

_____

25. Which explorer did John Speke and James Grant meet at Gondokoro in present day, South Sudan?

_____

26. How does the mining of limestone promote the construction industry?

_____

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27. Which element shows what a map is all about?

_____

28. How do the Guinea Ocean Currents affect the climate of Africa?

_____

29. Why did the colonialists introduce hut and gun taxes in Uganda?

_____

30. Give any **one** way the discovery of fire improved earlyman's way of life.

_____

31. State any **one** challenge faced by the Electoral Commission during preparation for general elections.

_____

32. How can the LCI vice chairperson fight cases of child abuse in their area?

_____

33. Mention any **one** river in Uganda that flows northwards into Egypt.

_____

34. Why should the East African Community encourage member states to unite and cooperate?

_____

35. How does the construction of good roads in rural areas promote farming?

_____

In each of the questions 36 to 40, answer <u>EITHER</u> the Christian <u>OR</u> Islamic question but not both. No marks shall be awarded to a candidate who attempts both alternatives in a particular number.

36. **Either:** Why did Cain murder his brother Abel?

_____

Or : Why did Qabeel murder his brother Habeel?

_____

37. **Either:** Name the lake where Jesus Christ walked on water.

_____

Or : Name the mountain where Prophet Muhammad (PBUH) received the Qur'an.

_____

38. **Either:** How do Christian religious leaders promote peace in the community?

_____

Or : How do Muslim religious leaders promote peace in the community?

_____

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39. Either: Why do Christian teachings encourage men to have only one wife?

_____

Or : Why do Islamic teachings encourage Muslim women to be submissive to their husbands?

_____

40. Either: Who helped Jesus to carry the cross according to the Bible?

_____

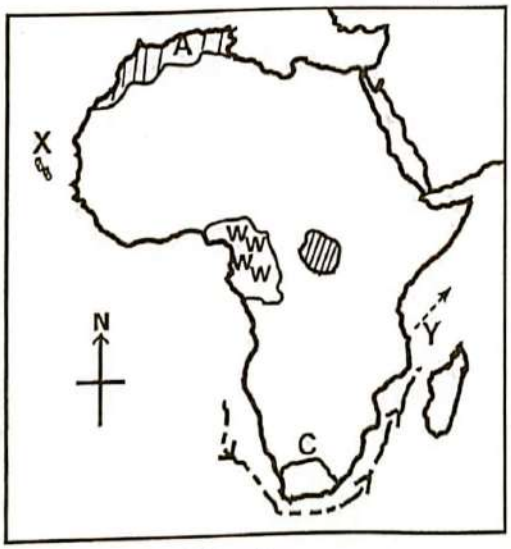
Or : Who built the kaaba?

_____

SECTION B: 60 MARKS

Questions 41 *to* 55 *carry* **four** *marks each.*

41. Study the sketch map of Africa below and use it to answer the questions that follow.



(a) Name the islands marked **X** on the map.

_____

(b) Mention **one** occupation of people in the climate area marked **C** and **A**.

_____

(c) Give any **one** factor that makes it difficult to end civil wars in the area marked **W**.

_____

(d) Which group of early Europeans used the route marked **Y** on the map first to visit Asia?

_____

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42. (a) Mention any **one** social service which is provided by doctors in our community.

_____

(b) Give any **two** reasons why the government sometimes delays to pay civil servants.

(i) _____

(ii) _____

(c) Why should citizens care for social service centres?

_____

43. (a) Mention any **two** human practices which can be used to control global warming.

(i) _____

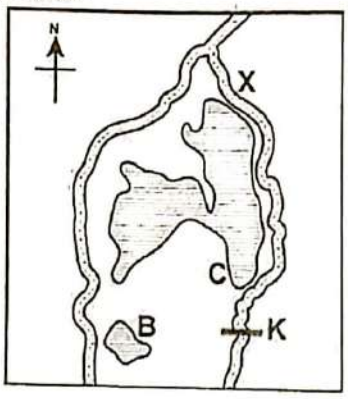
(ii) _____

(b) How does NEMA conserve wetlands in Uganda?

(i) _____

(ii) _____

44. Study the sketch map of Gezira scheme below and use it to answer the questions that follow.



(a) Name the;

(i) irrigation extension marked **B** _____

(ii) dam marked **K** _____

(b) State any **one** way farmers on Gezira scheme marked **C** benefit from clean canals.

_____

(c) Give any **one** challenge farmers on the scheme marked **C** face.

_____

45. (a) Give any **two** sources of information about the people of East Africa.

(i) _____

(ii) _____

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(b) How do people today in East Africa economically benefit from places where earlyman settled?

_____

(c) How did the discovery of farming help earlyman to live a settled life?

_____

46. (a) Name **one** mineral in the Albertine region which will lead to the construction of a pipeline.

_____

(b) Why should good roads be built in areas where minerals are discovered?

_____

(c) Give any **two** factors that may delay the government from developing some mining centres.

(i) _____

(ii) _____

47. (a) State any **two** ways social media can be used to promote development in a country.

(i) _____

(ii) _____

(b) Give any **two** challenges faced when using internet as a means of communication.

(i) _____

(ii) _____

48. (a) Give any **two** factors that can make an area to have many job opportunities.

(i) _____

(ii) _____

(b) State any **two** ways in which people in urban areas benefit from those in rural areas.

(i) _____

(ii) _____

49. a) Which organ of the United Nations is made up of five permanent member countries?

_____

(b) Give any **two** ways in which United Nations has tried to promote human rights in member countries.

(i) _____

(ii) _____

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(c) How is New York City important in the operation of United Nations?

_____

50. (a) Mention any **two** challenges enumerators faced during the 2024 National Population and Housing Census (NPHC).

(i) _____

(ii) _____

(b) Give any **two** ways the information collected during a national census helps the government.

(i) _____

(ii) _____

In each of the questions 51 to 55, answer EITHER the Christian OR Islamic question but not both. No marks shall be awarded to a candidate who attempts both alternatives in a particular number.

51. Either: (a) Mention any **two** sacraments a baptised child can receive in Christianity.

(i) _____

(ii) _____

(b) How do Christian children benefit from receiving sacraments?

(i) _____

(ii) _____

Or :(a) Mention any **two** pillars of Islam a Muslim child can practice.

(i) _____

(ii) _____

(b) How do Muslim children benefit from practising the pillars of Islam?

(i) _____

(ii) _____

52. Either:(a) Name the wife of Abraham who was the mother of Isaac.

_____

(b) Why was Abraham faithful to God?

_____

(c) Give any **two** moral lessons you learn from the story of Abraham.

(i) _____

(ii) _____

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Or :(a) Name the wife of Prophet Ibrahim who was the mother of Ishaq.

_____

(b) Why was Hajarah sent away from Ibrahim's home?

_____

(c) Mention any **two** moral lessons you learn from the story of Yaqub and his twin brother.

(i) _____

(ii) _____

53. Either: (a) Give any **two** reasons why Jesus Christ was able to attract many followers.

(i) _____

(ii) _____

(b) How did the Pharisees and the teachers of the law react to Jesus' many followers and teachings?

_____

(c) Name the person to whom the Roman soldiers took Jesus Christ after His arrest.

_____

Or :(a) Give any **two** reasons why Prophet Muhammad (PBUH) was able to attract many followers.

(i) _____

(ii) _____

(b) How did the Meccans react to Prophet Muhammad's new religion?

_____

(c) Who escorted Prophet Muhammad (PBUH) to Taif?

_____

54. Either: (a) Give any **two** causes of success among Christians today.

(i) _____

(ii) _____

(b) Which advice would you give to a friend who has failed examinations?

(i) _____

(ii) _____

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Or :(a) Give any **two** causes of success among Muslims today.

(i) _____

(ii) _____

(b) Which advice would you give to a friend who has failed examinations?

(i) _____

(ii) _____

55. Either: Match the book in the Bible to the information about it correctly.

Holy book	Prophet who received it.
Genesis	Last book in the Bible.
Revelation	Has the creation story.
Malachi	Has the Ten Commandments.
Exodus	Last book in the Old Testament.

(i) Genesis _____

(ii) Revelation _____

(iii) Malachi _____

(iv) Exodus _____

Or : **Match the Holy book in Islam to the Prophet who received it correctly.**

Bible book	Information about it
Qur'an	Prophet Isa
Tauret	Prophet Muhammad (PBUH)
Zabur	Prophet Musa
Injir	Prophet Dauda

(i) Qur'an _____

(ii) Tauret _____

(iii) Zabur _____

(iv) Injir _____

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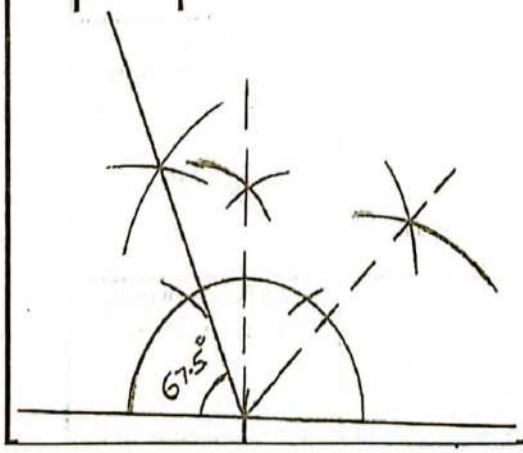
THE SIPRO PRIMARY SEVEN MATHEMATICS PRE-PLE SET II MARKING GUIDE 2024.

QN	LEVEL	SOLUTION	MRK	REASON	COMMENT
1	P.1	9 7 -1 5 8 2	B_2	For the difference.	Operate and regroup correctly involving word statements.
2	P.6	5ab + 2ab – 3ab 7ab – 3ab 4ab	B_2	For 4ab	Revisit collecting like terms.
3	P.5	B – A = Ø n(B-A) = 0	B_1 B_1	For B-A For n(B-A)	Help the candidates to identify the regions on the venn diagram and differentiate.
4	P.6	CDX = CD X = 400 + 10 = 410	B_2	For 410	Revisit conversion of hindu Arabic to Roman numerals.
5	P.5	500ml packets | LL = 1000ML 25ml | 0.5L = 5X1000ML ^{20}500ml | 10 ^{1}25ml | 500ML 20 packets of 25ml	M_1 A_1	For the method. For the answer.	Make a review on related areas but with different units.
6	P.7	Days past 19 - 1 = 18 days Day – days = (finite 7) 5 – 18 = (finite 7) 2rem4 7|18 5 – 4 = __(finite 7) 1 (finite 7) The weeding started on Monday.	M_1 A_1	For the method. For the answer.	Expose candidates to application of integers in different versions. **Accept** S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
7	P.6	2|300 2|150 3| 75 5| 25 300 = 2x2x3x5x5 5| 5 1	M_1 A_1	For the method. For correct answer.	Make a review on prime factorization and assist the weak candidates.
8	P.7		B_1 B_1	For 135^0 For 67.5^0	Emphasise correct labelling of angles.

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9	P.5	Aminah Liz 7 12 8 13 9 14 10 15 11 16 12 17 13 18 Aminah will be 13 years.	M_1 A_1	For the method For the correct answer.	Accept any other method leading to correct answer. Accept Difference (18 – 12)years 6 years Aminah 7+6 13 years
10	P.5	3 2 0 five bnes fives five fives (3x5x5)+(2x5)+(0x1) 75 + 10 + 10 85 ten	M_1 A_1	For the correct method For the correct answer	Help the candidates to operate bases and regroup where applicable.
11	P.6	1g = 100cg 2g = 2x100cg = 200cg $\frac{40}{200}$ x 100% $\frac{\cancel{40}^{20}}{\cancel{200}_{1}}$ x $\cancel{100}$% = 20%	M_1 A_1	For correct method. For the correct answer.	Involve variety of units used in related questions.
12	P.6	$m^0 + 30^0 = 180^0$ $m^0 + 300 - 300 = 180^0 - 30^0$ $m^0 = 150^0$ $\frac{m^0}{1^0} = \frac{\cancel{150}^{0}}{1^0}$ m = 150	M_1 A_1	For the equation. For 150	- Make a review on angles involving parallel lines. - Encourage completion of diagrams.
13	P.7	3, 8, 4 - 483, 438 →843 (834) →384, (348) Smallest number is 348 Biggest number is 834	B_1 B_1	For 348 For 835	Revisit divisibility tests and help candidates on how they can be applied.
14	P.7	2h – (3 – h) = 9 2h – 3 + h = 9 2h + h – 3 = 9 3h – 3 + 3 = 9 + 3 3h = 12 $\frac{3h}{3} = \frac{\cancel{12}^{4}}{\cancel{3}_{1}}$ h = 4	M_1 A_1	For the correct method used. For the correct answer.	Expose candidates to variety of equations and practice.
15	P.5	% profits = $\frac{p}{BP}$ x 100% BP = sh. 18,000 sh. 2,000 sh. 16,000	M_1	For the correct method	Make a review on finding B.P, S.P, loss profit etc.

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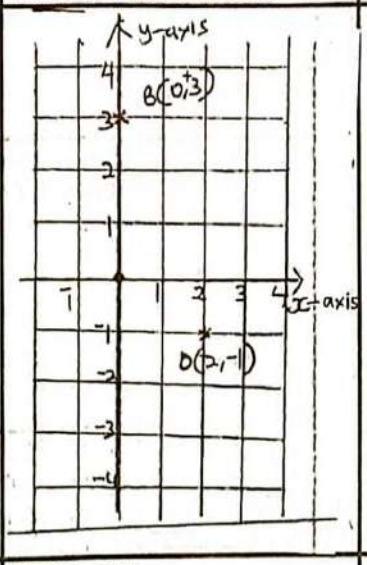
		$\frac{2000}{16000} \times 100\%$ $= \frac{200}{16}$ $12\frac{1}{2}\%$ or 12.5	A1	For the correct answer.	
16	P.7	Hours min 7^{6} : $^{70}10$am -6 : 40am 30min 9 : $^{60}00$am - 30 8 : 30am The correct time is 8:30am	B1 B1	For 30mins For 8:30am	Accept any other method leading to correct answer.
17	P.7		B1 B1	For the correct co-odinate.	Make a review on plotting and identifying the points on the graph.
18	P.6	R = HT – LT R = -5⁰c – (-19⁰c) R = -5⁰c + 19⁰c R = 14⁰c The rise in temperature was +14⁰c	M1 A1	For the method. For the correct answer	Revisit simplification of integers.
19	P.7	$\frac{3}{4} \div 4$ $\frac{3}{4} \div \frac{4}{1}$ $\frac{3}{4} \times \frac{1}{4}$ $\frac{3}{4} \times \frac{1}{4}$ $= \frac{3}{16}$	M1 A1	For the method. For the correct answer	Make a review on operation of fractions.
20	P.7	6 x 40kg = 240kg 40kg + 20kg = 60kg 240kg - 60g 180kg	M1 A1	For the correct method For the answer.	Expose learners to a variety of such related questions.

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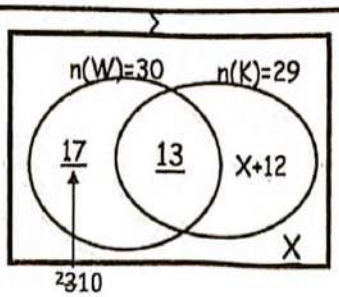
		SECTION B			
21a)	P.7	 $^{2}\cancel{3}10$ - 13 17	B1 B1 B1	For correct entry 13. For entry 17 For entry x.	Encourage candidates to always read the question at least 3 times for them to understand correctly.
b)		x + 12 + 13 = 29 x + 25 − 25 = 29 − 25 x = 4	M1 A1	For the correct equation formed. For correct answer.	
c)		17 + x 17 + 4 = 21 pupils	B1	For correct answer.	
22 a)	P.6	**Peas** 2 1xsh.4000 2 2000 5 x sh. 4000 2 1 Sh. 10,000 **cooking oil** sh. 6000 sh. 8000 6 3 8 4 3 4 **Sugar** Sh. 13,000 ÷ 3 1/4 Sh. 13,000 ÷ 13/4 1 4 Sh. 13000 1000 x 4 1 13 1 Sh. 4,000 **Mushrooms** 1,500 x sh. 2,000 1000 = Sh. 3,000 **Total bill** sh. 10,000 sh. 6,000 sh. 13,000 + sh. 3,000 sh. 32,000	B1 B1 B1 B1 B1	For sh.10,000 For 3/4 litres For sh. 4,000 For sh. 3,000 For the total bill.	Help candidates on how to fill the table and encourage them to show the working.
b)		sh. $^{3}\cancel{4}10,000$ - sh. 32,000 sh. 8,000	B1	For the correct answer.	
23a)	P.6	2 | 40 | 50 2 | 20 | 25 2 | 10 | 25 5 | 5 | 25 5 | 1 | 5 | 1 | 1	M1	For the method.	Make a review on prime factorization of numbers and expose candidates to more

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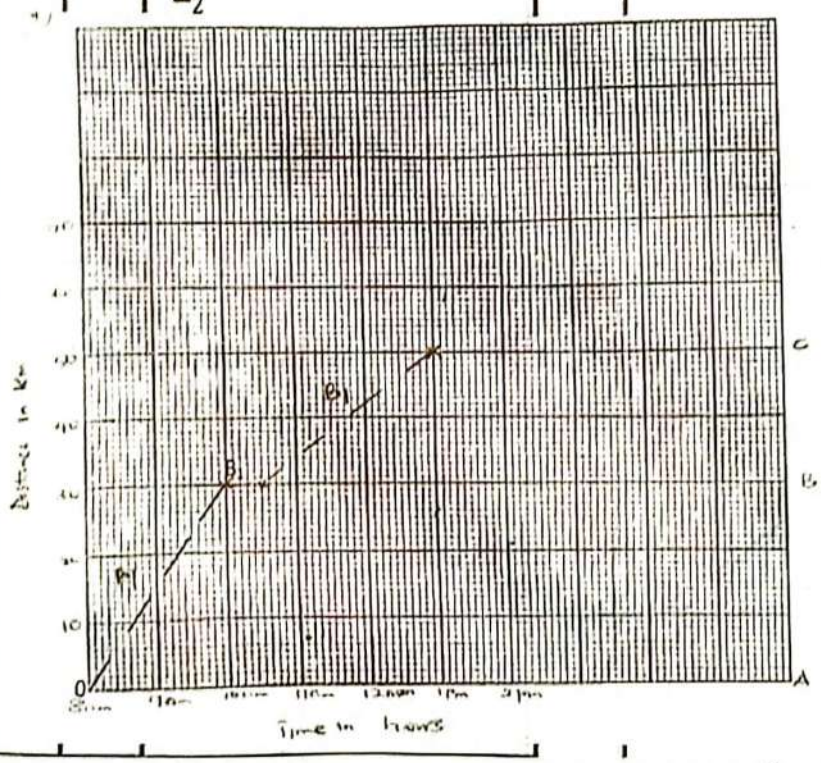
		(2x2x2)x5x5 8 x 25 200 minutes (~~200~~ 10)hours 60 3 $3\frac{1}{3}$ hours	B_1 A_1	For 200 minutes For $3\frac{1}{3}$ hours	other application questions.
b)		$\frac{1}{3} \times 60^{20}$ 3_1 20 munites 6 00am + 3 20 9 20am The bus will leave together at 9:20a.m	M_1 A_1	For addition For the answer.	
24a)	P.7	A to B D = SxT = $\frac{15km}{1h}$ x 2hours = 30km Resting time $\frac{1}{2}$hour B to C D = 20km T = $\frac{D}{S}$ = $\frac{{}^{5}\cancel{20}km}{\cancel{8}_{2}km/h}$ = $2\frac{1}{2}$hour	B_1 B_1	For 30km For $2\frac{1}{2}$hour	Encourage candidates to find the distance, time and speed if they are not given.



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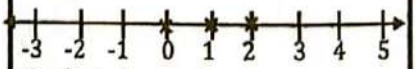
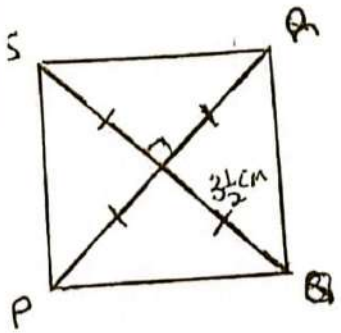
25	P.5	Volume = $\pi r^2 h$ $= \frac{22}{7} \times 14cm \times 14cm \times 20cm$ $\frac{22}{\cancel{7}_1} \times \cancel{14}^{1} cm \times (14cm \times 20cm)$ $44cm \times 280cm^2$ $12320cm^3$ $12320cm^3$ $- 3320cm^3$ $9000cm^3$ No of litres = $\frac{volume}{1000cm^3}$ $(\frac{9000\ \cancel{cm^3}}{1000\cancel{cm^3}})$ Litres 9 litres	M_1 B_1 B_1 A_1	For the method For $12320cm^3$ For $9000cm^3$ For 9 litres	Revisit volume of all solid figures and work out the capacities.
26a)	P.7	$\frac{3}{4}m + 7 = 40$ $\frac{3}{4}m + 7 - 7 = 40 - 7$ $\frac{3}{4}m = \frac{33}{1}$ $(\frac{3}{4}m \times 4) = \frac{33}{1} \times 4$ $\frac{\cancel{3}}{\cancel{3}}m = \frac{\cancel{33}^{11}}{\cancel{3}} \times 4$ m = 44	M_1 A_1	For collecting like terms. For m = 44	Make a review on equations and involve solving inequalities. Accept other correct methods.
b)		$6(x+3) > 12$ $\frac{\cancel{6}^{1}(x+3)}{\cancel{6}_1} > \frac{\cancel{12}^{2}}{\cancel{6}_1}$ $x + 3 > 2$ $x - 3 - 3 > 2 - 3$ $x > -1$  X = {0, 1, 2, _, _, _}	M_1 B_1 B_1	For collecting like terms. For x> -1 For the solution set.	Accept other correct approaches.
27a)	P.7	 	S_1 C_1 C_1 J_1	For the sketch. For 90° For the arcs. For joining.	Make a review on construction of all quadrilateral polygons.

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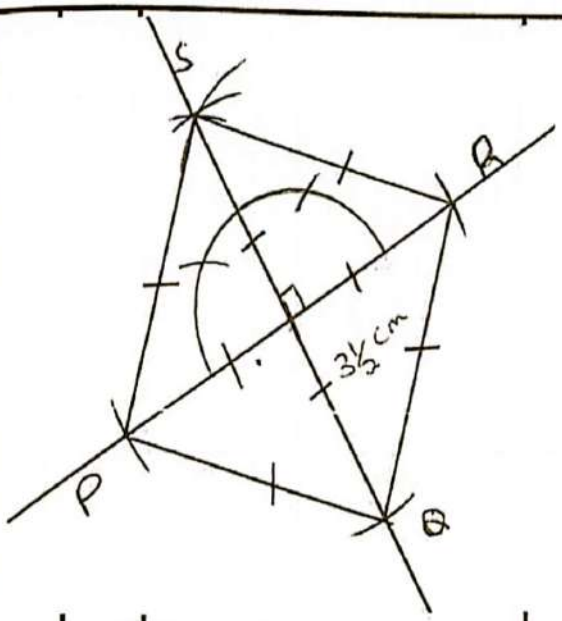

	b)	QR = ± 4.9cm	B_1	For the length.	
28a)	P.7	Average = $\frac{\text{sum of data}}{\text{Number of data}}$ $\frac{75}{1} = \frac{60 + 2p - 18 + 81 + p}{4}$ $\frac{75}{1} = \frac{60 + 81 - 18 + 2p + p}{4}$ $4 \times \frac{75}{1} = \frac{(123 + 3p \times 4}{4}$ 300 = 123 + 3p 300 – 123 = 123 – 123 + 3p $\frac{177^{80}}{3} = \frac{3p}{3}$ 5P = p P = 59	B_1 M_1 A_1	For the substitution For the correct method For the correct answer	Follow through and expose candidates to application of mean and other statistical terms. Accept P+2p-18+60+81=15x4 3p-18+141=75x4 3p+128=300 3p+123-123=300+123 $\frac{3p}{3} = \frac{177^{59}}{3}$ P = 59
b)		(2p – 18) (2x59) – 18 = 100 R = H - L 100 - 59 R = 41	B_1 B_1	For 142 For 41	
29a)	P.6	$2(k + 26^0) + 54^0 + 26^0 = 180^0$ $2k + 52^0 + 80^0 = 180^0$ $2k + 132^0 = 180^0$ $2k + 132^0 - 132^0 = 180^0 - 132^0$ $\frac{2k}{2_1} = \frac{48^0}{2}$ $k = 24^0$	B_1 B_1 A_1	For 2(k+26⁰) For the equation. For $k = 24^0$	Encourage candidates to indicate and make use of the diagram by writing in it.
	b)	$g + k + 26^0 + 54^0 = 180^0$ $g + 24^0 + 80^0 = 180^0$ $g + 104^0 = 180^0$ $g + 104^0 - 104^0 = 180^0 - 104^0$ $g = 76^0$	M_1 A_1	For the equation. For the correct answer.	

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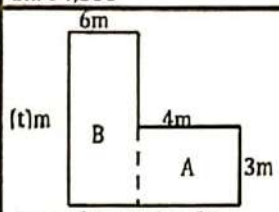
30a)	P.7	100% - 10% = 90% sh. 81,000 ÷ 90% sh. 81,000 ÷ $\frac{90}{100}$ 9000 Sh. $81000 \times \frac{100}{90}$ Sh 90,000	M_1 A_1	For the correct method For the correct answer.	Accept other correct methods.
		100% + 5% = 105% $\frac{105}{100}$ x sh. 90,000 Sh. 94,500	M_1 A_1	For the correct method For correct answer.	
31a)	P.7	 Area of A + Area of B (LxW) + (LxW) = area $(4mx3m) + (6mxtm)=60m^2$ $12m^2 + 6m^2t = 60m^2$ $12m^2 - 12m^2 + 6m^2t = (60m^2-12m^2)$ $6t = 48m^2$ $\frac{6m^2t}{6m^2} = \frac{48m^2}{6m^2}$ t = 8	B_1 M_1 A_1	For the correct method used. For collecting like terms. For the correct answer.	Follow through the candidates work and practical related questions.
b)		Perimeter = (10m + 10m) + (8m + 8m) = 20m + 16m = 36m	M_1 A_1	For the correct method. For correct answer.	
32 a)	P.7	3: 15pm +12: 00 15 15hour	B_2	For the correct answer.	Make a review on time table in both am and p.m.
	b)	4 : 40 p.m time taken -0 : 30 6: 10pm 4 : 10p.m - 4:10p.m 2 hours	M_1 A_1	For 4:10p.m For 2hours	
	c)	6 : 25p.m - 6 : 10 p.m 0 : 15 minutes D = SxT D = $640\frac{km}{1h} \times \frac{1h}{4}$ D = $(\frac{640}{4})$km D = 160km	M_1 A_1	For the correct method. For the answer	

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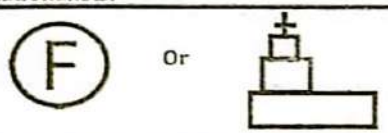
THE SIPRO PRIMARY SEVEN SOCIAL STUDIES WITH R.E PRE – PLE SET II - MARKING GUIDE 2024

NO	CLASS LEVEL	CORRECT RESPONSE	WRONG ANSWER	MARKING POINT	TECHNICAL ADVICE
1	P.3	Swamps are sources of clay, papyrus, palm leaves/They are sources of raw materials for crafts.	Swamps are sources of craft products.	Importance of swamps to people who make craft materials.	Revise with learners examples of craft materials and their importance.
2	P.6	South Sudan, Ethiopia, Malawi, Zambia	Rwanda, Burundi, DRC	Landlocked countries neighbouring East Africa.	- Help learners to understand that Rwanda and Burundi are also part of East Africa. - Learners should also know that DRC is not landlocked.
3	P.4	By arresting suspects/By using tear gas/By curbing down riots/By detaining suspects.	It is where cases are reported.	How police officers can reduce mob justice in an area.	Guide learners to know the difference and importance of social service centres and social service providers.
4	P.7	Due to disunity of Africans/Due to weaker weapons of Africans/Due to arrest of nationalists /Due to murder and exile of nationalists.	They were smaller than colonial masters.	Why some African countries delayed to get independence.	Explain to learners clearly the challenges which were faced in the struggle for independence. Also discuss the causes and effects of mob justice.
5	P.3			Drawing a symbol of a ferry.	- Advise learners to always use the Atlas for accurate map symbols especially Moran Atlas. Learners should draw symbols using pencils.
6	P.7	To stay in school/To avoid poor performance/To promote peace/To promote friendship/To promote discipline.	To avoid school dropouts.	Importance of obeying teachers and parents.	Revise with learners the ways of promoting peace at home.
7	P.6	By smoking/By salting/By sun-drying /By refrigerating/icing.	By covering it.	Ways of preserving fish at home.	Teach learners the modern and traditional ways of preserving fish.
8	P.5	To honour/recognize their leaders back home/To show that they have reached them /For prestige/For remembrance.	The old names were not good.	Why explorers renamed physical features in Africa.	Help learners to know the effects of explorers in Africa both positive and negative.
9	P.5	A national population census is the official general counting of people in a country.	A national population census is the official counting of people in an area.	Meaning of a national population census.	Revise with learners population terms and current affairs plus government policies.
10	P.7	Reduces trade between Uganda and that country/Reduces free movement of people, goods and services between Uganda and that country.	Leads to death of people.	How a war in Uganda's neighbour economically affects Uganda.	Revise with learners the benefits of regional integration.
11	P.5	A national constitution guides leaders/It protects human rights/It provides peaceful ways of changing leadership/It provides peaceful means of solving conflicts.	A national constitution leads a country.	How a national constitution promotes good governance.	Revise with learners the importance of different national symbols.

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12	P.7	Promotes democracy/Promotes education services/Promotes exchange of expatriates in different fields/Promotes conservation of environment/Prepares Commonwealth games.	Sends peace keeping forces to member countries.	How Commonwealth of Nations promotes the social welfare of her citizens.	Revise with candidates the importance of major world organisations.
13	P.5	The Kabaka was addressed as His Highness/ Lukiiko was to be expanded to 89 members/ Kabaka was to be assisted by three senior officials/Land was to be divided into Mailo and crown land.	Land/taxation/governance	The recommendations of the 1900 Buganda Agreement.	Help learners to understand the reasons for signing agreements with colonialists and their terms using the right references. Learners should also know the effects of these agreements.
14	P.7	South Africa easily imports and exports her goods/South Africa imports and exports cheaply/South Africa attracts many tourists who bring income/Pay less transport on imports and exports/Handles more goods at once.	South Africa is not landlocked.	How South Africa benefits from having access to Indian and Atlantic Ocean.	Revise with learners the location of different case study countries and their economic impact.
15	P.6	Mount Kilimanjaro	Mount Usambara	The highest volcanic mountain in Tanzania	Guide learners to locate Mt. Kirimanjaro on the map and other volcanic mountains..
16	P.7	Led to religious wars and competition for converts/Led to division of people.	Led to colonization of Africa and change in African culture.	How the coming of missionaries in different groups was a challenge.	Revise with learners the positive and negative effects of the coming of different foreigners.
17	P.5	By not killing it/By protecting its habitats (swamps).	By standing upright/By feeding it.	Ways of respecting the Uganda national emblem.	Revise with learners the different ways of respecting national symbols.
18	P.7	Due to difference in climate (rainfall and temperatures)/Due to difference in nature of the soil.	Climate/soil fertility/ vegetation	Why DRC has different vegetation from Libya.	Revise with learners the factors that influence different vegetation zones in Africa.
19	P.2	Members in an extended family have more social security than those in a nuclear family /Socialisation/No boredom.	There is more labour in an extended family than in a nuclear family.	Advantage of an extended family over a nuclear family.	Revise with learners the advantages and disadvantages of different types of families.
20	P.4	By building good roads in rural areas/By providing security in rural areas/By extending electricity to rural areas/By promoting industrialization in rural areas.	By charging taxes on traders.	To state way government can promote trade in rural areas.	Revise with learners ways government improves on people's welfare. Also discuss the concept of rural – urban migration in details.
21	P.7	It united nationalists/Nationalists learnt methods of demanding for independence/ Gave nationalists courage.	It controlled rebellions.	The importance of Pan – African Conferences in the struggle for independence.	Revise with learners the different nationalists and Pan – Africanists and their contributions.
22	P.1	Promotes security/peace/love/ trust/ prestige/respect.	Promotes discipline.	Why children should keep family secrets.	Revise with learners different ways of maintaining security at home.
23	P.6	To easily transport administrators/ For easy movement of colonialists.	To link Uganda to the coast and transport raw materials.	Political reason for constructing Kenya – Uganda railway.	Guide learners to know the economic, political and social reasons for constructing the Uganda railway.
24	P.4	People can send and receive money using mobile phones/Mobile phones can be used	People no longer keep money in banks.	How mobile phones have reduced on people going to banks.	Revise the different ways mobile phones have eased on people's way of life.

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		to keep money/People can withdraw money kept in banks using phones.			
25	P.5	Sir Samuel Baker	HM Stanley/David Livingstone /Dr. Mungo Park	Specific to the stated response.	Help learners to understand the routes showing movement of different explorers in Africa.
26	P.6	It is used to make cement and lime used in the construction industry.	It is a source of income/It is used for tourism.	How limestone mining promotes construction industry.	Revise with learners the products from different minerals and their importance.
27	P.3	Title	Key, scale, compass direction, frame	Element which shows what a map is all about.	Guide learners to know the importance of different elements of a map and their importance.
28	P.7	Guinea ocean currents bring rainfall/ Bring warm conditions.	Brings deserts/dry conditions.	How Guinea ocean currents influence climate of Africa.	Teach learners how different ocean currents and winds influence Africa's climate.
29	P.5	To get income to provide social services/To encourage natives to grow cash crops/To get cheap labour.	To reduce on huts.	Why colonialists charged natives hut and gun tax.	Revise the different taxes colonialists introduced and reasons for taxes they introduced.
30	P.6	Fire provided light in caves/Fire provided warmth in caves/Fire provided protection against animals/ Fire enabled earlyman to live in caves/Fire was used for roasting meat.	Fire was used for cooking food.	How fire improved earlyman's way of life.	Revise with candidates the different tools and items of earlyman and how they improved his life.
31	P.5	Rigging of votes/Ballot stuffing/ Poor transport network/ Misdirecting voters/ Deleting of voters/ Fighting of supporters of candidates.	Difficulty in counting votes.	Problem faced by the electoral commission.	Revise the duties of the electoral commission and challenges faced.
32	P.3	By reporting people who carry out child abuse to police/By sensitizing people.	By punishing people who abuse children's rights.	How LC 1 Vice Chairperson fights child abuse.	Revise ways of controlling child abuse and people who control child abuse.
33	P 5	River Nile	River Achwa	River in Uganda that flows Northwards into Egypt.	Help the candidates to know the reason why River Nile flows Northwards.
34	P.6	To promote trade/To promote peace and security/To promote free movement of people, goods and services.	To increase in size.	Why EAC encourages member states to unite.	Revise benefits of common markets to member countries.
35	P.4	It promotes easy transportation of farm produce/Creating market for produce.	It promotes development.	How good roads in rural areas promote farming.	Revise with learners the importance of different social services.
36	P.4 Either	Cain was jealous of his brother Abel.	God blessed Abel.	Why Cain murdered his brother Abel.	Revise people who annoyed God in the Bible and how God punished them.
	Or	Qabil was jealous of his brother Habil.	Allah blessed Habeel.		
37	P.3 Either	The Galilee	Jordan	Lake where Jesus walked on water.	Revise important religious places and events that took place there.
	Or	Mt. Noor	Mt. Arafat	Mountain where Prophet Muhammad (PBUH) received the Qur'an.	

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38	P.4 Either/ Or	By praying for peace/By reconciling people /By mediating peace talks/By preaching forgiveness.	By arresting wrong doers.	How religious leaders can promote peace.	Revise with learners the Christian and traditional ways of promoting peace/reconciliation.
39	P. Either/ Or	To promote peace/To promote love/To promote fairness/To produce Godly children /To prevent the spread of diseases.	To avoid death.	- Why Christian men should have one wife. - Why Muslim women should be submissive to their husbands.	Revise with candidates the qualities of a good marriage partner.
40.	P.5 Either	Simon of Cyrene.	Any other answer.	Who carried the cross of Jesus Christ.	Revise with learners the different personalities connected in the life of Jesus Christ and other prophets in Islam.
	Or	Prophet Ibrahim and his son Ismail.	Prophet Muhammad (PBUH)	Who built the Kaaba.	
			SECTION B		
41.	P.7	a) Cape verde Islands	Principe and SanTome	To name cape verde island on a map of Africa.	- Help learners to interpret maps by revising or drawing a map for different topics learnt. - Also guide the candidates to locate island countries in Africa.
		b) Crop growing/Animal rearing/ Processing/Trade.	Crops/Animals	To interpret the map of Africa.	
		c) Bad governance/Abundant resources/ Thick forests/country is large/ poor transport network.	No army for protection.	Reason why there are many civil wars in DRC.	
		d) Portuguese/Portuguese explorers.	Arab traders		
42.	P.3	a) Health services	Education service/ Treatment	To state the social service provided by doctors.	- Exhaustively revise with learners the different types of social services, social service centres and how to care for them. - Revise the civil servants who are paid salaries by the government.
		b) Due to shortage of funds/ preparing/ Submitting workers' information/Due to corruption/Due to faults in payment system.	They don't fulfil their duties.	Reason why the government delays to pay some civil servants.	
		c) To get better social services/To stay longer.	To attract customers.	Importance of caring for social service centres.	
43.	P.7	a) Planting trees/afforestation/ swamp reclamation/Using environmental friendly energy sources.	Mulching/contour ploughing.	To state the human practices that can control global warming.	- Revise with learners the causes of climate change and ways of controlling global warming as well as its effects.
		b) Evicts people from wetlands/Tree planting/ Conducts environmental awareness campaigns.	By creating more swamps	Ways NEMA protects wetlands.	
		c) By protecting wetlands/By enforcing laws against wetland destruction.	It conserves the environment.	Roles of NEMA in environment protection.	
44	P.7	a) (i) Kenana (ii) Sennar dam	(i) Managil/Gezira (ii) Roseires dam	Interpreting questions about a map of Gezira irrigation scheme.	- Emphasise the map and economy of case study countries to learners in comparison with Uganda.
		b) Easy flow of water to the fields/ Reduces the spread of bilharzia disease.			
		c) Silting of canals/Crop pests/Crop diseases.	Drought		
45.	P.6	a) Oral tradition/Written records/ Archaeology/Anthropology/ Linguistics	Mobile phones/drums	To state the sources of African history.	- Guide learners to understand the sources of history, advantages and disadvantages of each source plus their components. - Discuss the economic importance of stone
		b) They are sources of income through tourism	They are used for education	Economic importance of Historical	

		/They are sources of jobs.	purpose.	sites.	age sites.
		c) Earlyman did not need to move from place to place looking for food.	Early man started growing crops.		
46.	P.5	a) Crude oil/Natural gas	Gold/copper	Liquid or gas in Albertine region.	- Revise with learners mining areas, major mining areas and importance of mining to the economy of East Africa.
		b) To easily transport minerals to factories/ To easily transport mineral products/To attract investors.	For tourism	Why good roads are built in areas where minerals are discovered.	
		c) Shortage of funds/Low technology /Due to shortage of skilled labour.	Lack of labour.	Factors that may delay government from moving.	
47	P.6	a) For communication/For advertisement/ For educational research/Mobilising masses.	Mobile phones/internet/ television/newspapers.	Social media channels used by people in Uganda.	- Guide learners to understand the different modern and traditional means of communication, their advantages and disadvantages.
		b) It is expensive/There is loss of network sometimes/It requires modern gadgets to operate/Some areas don't have electricity/ Illiteracy.	They are slow.	Disadvantages of internet as a means of communication.	
48.	P.4	a) Presence of many social service centres/ Improved transport network/ Presence of many industries/factories/Improved security Agriculture/Mining/ Market centres/Tourism.	Having a high/low population/ Having many jobs.	To state the causes of many job opportunities in an area.	- Clearly explain to learners through group discussions the way people in rural areas depend on those in urban areas and vice versa.
		b) They get food from those in rural areas/ They get labour /workers/ They get firewood/ They get building materials/They trade with them (market).	They get cheap labour.	To state ways people in urban areas benefit from those rural areas.	
49.	P.7	a) Security council.	Peace and security council	To name the organ of UN which has five permanent member countries.	- Guide learners to understand the major world organisations, their organs, headquarters, functions, similarities and differences.
		b) By trying leaders who violate human rights, By observing and monitoring national elections/By putting sanctions on countries that violate human rights. By outlawing and encouraging countries to respect human rights.	By governing the member countries.	To state ways in which UN promotes human rights.	
		c) New York City has the headquarters of	New York is where UN is found.	To state ways how New York City is important in the operation of UN	

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		/They are sources of jobs.	purpose.	sites.	age sites.
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		b) By trying leaders who violate human rights/ By observing and monitoring national elections/By putting sanctions on countries that violate human rights/By outlining and encouraging countries to respect human rights.	By governing the member countries.	To state ways in which UN promotes human rights.	
		c) New York City has the headquarters of United Nations.	New York is where UN is found.	To state ways how New York City is important in the operation of UN.	
50.	P.5	a) Bad weather/Delayed and underpayment /theft/attacks/bad roads/negative attitude among the people/Loss of internet.	No payment/Lack of modern gadgets.	To state challenges enumerators faced during 2024 National population census in Uganda.	- Help learners to understand the reasons for organizing the national population census, other government programmes, their benefits and challenges faced when implementing them.
		b) It helps in planning/It helps in providing social services/It helps in demarcating constituencies/It helps in determining the level of illiteracy, unemployment and poverty.	To know the number of people living in a country.	To give ways the information collected during a census benefits the government.	
51.	P.6 Either	a) Holy communion/Holy Eucharist/ Anointing of the sick/Penance	Baptism/Holy matrimony/ Holy Orders.	To state sacraments a baptized child can get in Christianity.	- Revise with candidates sacraments, their examples, symbols and importance.
		b) They strengthen their faith/They join God's family/Brings them closer to Jesus/ God/Forgiveness/Spiritual growth/Union with Christ.	They don't die.	To state the importance of receiving sacraments to children.	

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	Or	a) shahadat/zakat/salat/saum	Believe in angels/Believe in prophets.	Pillars of Islam a Muslim child can practise.	- Revise with learners the pillars of Islam and their importance.
		b) They get blessings/They strengthen their faith/They get protection and forgiveness from Allah.	They get money.	- To state pillars Muslim children can practice. - To state the importance of observing pillars to Muslims.	
52.	P.5 Either	a) Sarah	Rebecca	Wife of Abraham the mother of Isaac.	- Revise with learners about faith in details.
		b) He had a covenant with God (Gen 15:17)/ He wanted to get blessings from God/ Trusted in God's promises/He was grateful for God's protection/He feared God.	He had strong faith in God.	Reason why Abraham was faithful.	- Talk about people who had strong faith in God.
		c) To be obedient/To be faithful/To be honest /To be patient.		Lessons drawn from Abraham's story.	- Guide candidates to read the story of Abraham.
	Or	a) Sarah	Hajara	The mother of Isaac.	- Guide learners to read the stories of Moses, Gideon, Ruth, etc from the Bible/Qur'an.
		b) It was a command from Allah/She despised Sarai.	She was not beautiful.	Reason why Prophet Ibrahim sent Hajara away from his home.	
		c) To be obedient/To be faithful/To be honest/ To be patient.	To delay to produce.	Lessons from the story of Ibrahim.	
53.	P.4 Either	a) He performed miracles (accept specific miracles)/He had powers from God/He had support from the Holy Spirit/They wanted healing and food.	He was loved/They knew He was God.	Why Jesus attracted many followers.	- Guide learners to read the Bible during C.R.E lessons and to attend church or Juma services on days of worship.
		b) They rejected Him/opposed Him/ Fought Him/Tortured His followers.	They were jealousy.	This was why he was arrested.	
		c) Annas	Caiaphas	Annas later sent him to Caiaphas.	
	Or	a) He performed miracles (accept specific miracles)/They were jealousy.			- Help the candidates to know the reason why Prophet Muhammad (PBUH) went to Taif.
		b) He preached against their idols.			
		c) Zaid	Abubakar	A person who escorted Prophet Muhammad (PBUH) to Taif.	
54.	P.6 Either/ Or	a) Luck/Hope/Good family background/ Hard work/obedience/ Making good decisions/ honesty/ faithfulness	Witchcraft/stealing/corruption	Causes of success.	- Encourage learners to state positive ways of getting success other than the negative ways. - Encourage learners to use real life experiences in answering some questions.
		b) To repeat/To revise a lot/To consult teachers/To be strong/To read harder.	To drop out of school/To sit home.	Advice you can give a friend who has failed an examination.	
55.	P.4 Either	(i) Genesis – has the creation story (ii) Revelation – last book in the Bible (iii) Malachi – last book in the Old Testament (iv) Exodus – has the Ten Commandments	Any wrong order other than the one given here in the guide.	To match correctly books to their messages.	- Encourage learners to match correctly by recopying correct answers without deviations. - Categories, examples of Holy books and their main messages should be revised.
	Or	(i) Qur'an – Prophet Muhammad (PBUH) (ii) Tauret – Prophet Musa (iii) Zabur – Prophet Dauda (iv) Injil – Prophet Isa			

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2020

SECTION A

1. $\begin{array}{r} 473 \\ +\ 312 \\ \hline 785 \end{array}$

Alternatively

$$\begin{array}{rl} 473 & = 400 + 70 + 3 \\ +\ 312 & = 300 + 10 + 2 \\ \hline & \quad 700 + 80 + 5 \end{array}$$

$$\begin{array}{r} = 700 \\ 80 \\ 5 \\ \hline 785 \end{array}$$

2. 27,040 = Twenty - seven thousand forty

Alternatively

Thousands			Units		
H	T	O	H	T	0
	2	7	0	4	0
Twenty seven thousand			Forty		

Twenty - seven thousand forty

3. How to obtain triangular numbers

1st	1
2nd	1+2 = 3
3rd	1 + 2 + 3 = 6
4th	1 + 2 + 3 + 4 = 10

So from given numbers 4, 5, 6, 7, 8, 9, 10

Triangular numbers are

4, 5, 6, 7, 8, 9, 10

Alternatively: Using patterns

Order	pattern	Triangular number
1st	•	= 1
2nd	• • •	= 3
3rd	• • • • • •	= 6
4th	• • • • • • • • • •	= 10

Alternatively: Using formula

Triangular numbers = $\frac{n(n+1)}{2}$

1st	$\frac{1(1+1)}{2} = \frac{2}{2} = 1$
2nd	$\frac{2(2+1)}{2} = \frac{2\times3}{2} = \frac{6}{2} = 3$
3rd	$\frac{3(3+1)}{2} = \frac{3\times4}{2} = \frac{12}{2} = 6$
4th	$\frac{4(4+1)}{2} = \frac{4\times5}{2} = \frac{20}{2} = 10$

4. Number of sub sets = 2^n, where n = number of elements.

$2^n = 4$

$2^n = 2^2$

$n = 2$

$\therefore n(Q) = 2$

Alternatively

$Q = \{m, k\}$

$n(Q) = 2$

5. 5834 in standard form

10	5834
10	583.4
10	58.34
	5.834

$\therefore 5834 = 5.834 \times 10^3$

Alternatively

$5\ 8\ 3\ 4$

$= 5.834 \times 10^3$

6. There are several methods we could use here,

Method 1: Using direct counting

10 : 00 pm — 1 hour

11 : 00 pm — 1 hour

12 : 00 mid-night — 1 hour

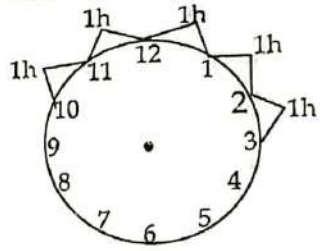
1 : 00 am — 1hour

2 : 00 am — 1 hour

3 : 00 am

Hence it arrived at 3 : 00 am

Method 2: Using the clock



Hence it arrived at 3 : 00 am

Method 3: using departure and duration

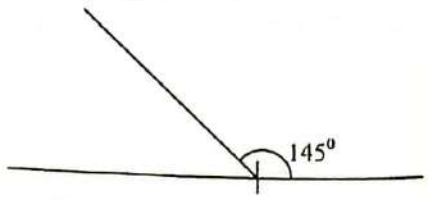
Arrival time = departure time + duration

$$\begin{array}{rl} & 10:00 \\ = & +\ 5:00 \\ \hline & 15:00\text{hrs} \end{array}$$

$$\begin{array}{rl} & 15:00 \\ = & -\ 12:00 \\ \hline & 3:00\text{am} \end{array}$$

Hence it arrived at 3 : 00 am

7. Drawing an angle of 145°



8. $\frac{nn}{n-r} = \frac{5\times3}{3-2}$

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$= \frac{15}{5} = \frac{\cancel{15}^{3}}{\cancel{5}_{1}}$

$= 3$

9. 1 kg = 1000g

9.85g = x

By cross multiplication,

$x = 9.85 \times 1000g$

$x = 9850g$

Hence 9.85kg = 9850g

10. Total number of pens = 5 + 6 = 11

Probability that a pen picked is blue = $\frac{5}{11}$

11. $3y = 5$(finite 7)

$3y = 5 + 7$ (finite 7)

$3y = 12$(finite)

$\frac{\cancel{3}y}{\cancel{3}} = \frac{\cancel{12}^{4}}{\cancel{3}_{1}}$(finite 7)

$y = 4$(finite 7)

12. LCM of 18 and 30

2	18	30
3	9	15
3	3	5
5	1	5
	1	1

$\therefore$ LCM $= 2 \times 3 \times 3 \times 5$

$= 90$

13. $9.8 \div 0.07 = \frac{98}{10} \div \frac{7}{100}$

$= \frac{\cancel{98}^{14}}{\cancel{10}} \times \frac{10\cancel{0}}{\cancel{7}_{1}}$

$= 14 \times 10$

$= 140$

14. Buying price = selling price – Profit

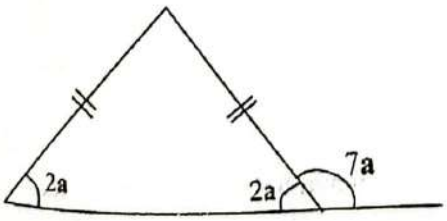
= 70,000 – 12,000

= Shs. 58,000

Buying price per each $= \frac{82,000}{2}$

= Shs. 29,000

15. Finding a



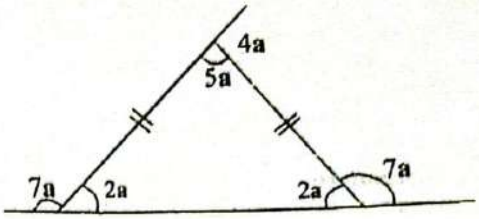
$2a + 7a = 180^o$

$9a = 180^o$

$\frac{9a}{9} = \frac{\cancel{180}^{20}}{\cancel{9}_{1}}$

$a = 20^o$

Alternatively



$4a + 7a + 7a = 360^o$

$18a = 360^o$

$\frac{\cancel{18}a}{\cancel{18}} = \frac{\cancel{360}^{20}}{\cancel{18}_{1}}$

$a = 20^o$

16. **Method 1**

Let number of female workers = x

$30 : x = 2 : 3$

$\frac{30}{x} = \frac{2}{3}$

By cross multiplication,

$2x = 30 \times 3$

$2x = 90$

$\frac{\cancel{2}x}{\cancel{2}} = \frac{\cancel{90}^{45}}{\cancel{2}_{1}}$

$x = 45$

Total number of workers = 30 + 45

= 75

Method 2

Let the total number of workers = y

Total ratio value = 2 + 3 = 5

$\frac{2}{5} \times y = 30$

$\frac{2y}{5} \times 5 = 30 \times 5$

$\frac{2y}{\cancel{5}} \times \cancel{5} = 30 \times 5$

$2y = 150$

$\frac{\cancel{2}y}{\cancel{2}} = \frac{\cancel{150}^{75}}{\cancel{2}_{1}}$

$y = 75$

$\therefore$ the total number of workers is 75

Method 3:

2 parts rep 30

1 part rep $\frac{30}{2} = 15$

5 parts rep $15 \times 5 = 75$ workers

17. $\frac{5}{6}k - 7 = 3$

$\frac{5}{6}k - 7 + 7 = 3 + 7$

$\frac{5}{6}k = 10$

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2019

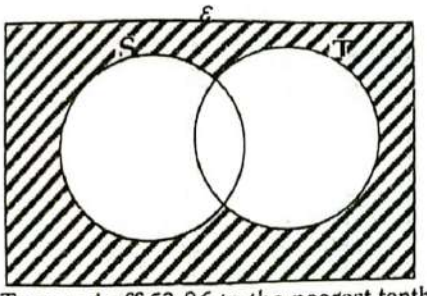
SECTION A

$$\begin{array}{r} 534 \\ -\ 123 \\ \hline 411 \end{array}$$

XC = 90
VII = 7
XCVII = 90 + 7
XCVII = 97

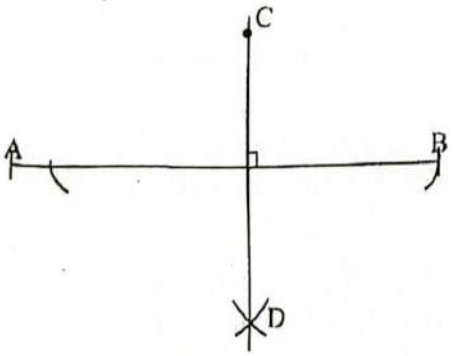
$3p + p - 2p$
$4p - 2p = 2p$

The region represented by $(S \cup T)'$ is the region outside the circles but inside the universal



To round off 53.86 to the nearest tenth means to round the numbers so that you only have one digit in the fractional part.
Hence;
53.86 = 53.9

- Place the compass on the point (point C).
- Draw an arc across the line on each side of the given point.
- From each arc on the line, draw another arc on the opposite side of the line from the given point (C)
- Use your ruler to join the given point (C) to the point where the arcs intersect (D) as shown below.



1kg = 1000g

$1g = \frac{1}{1000}$ kg

250grammes $= \frac{1}{1000} \times 250$ kg

250grammes $= \frac{250}{1000} = 0.25$ kg

8. A symbol for a girl = 26 girls
A symbol for a boy = 20 boys
Two symbols for girls + one symbol for a boy = $(2 \times 26) + (1 \times 20)$
$= 52 + 20$
$= 72$

9. $3 + m = 2$(finite 5)
$m + 3 - 3 = 2 - 3$(finite 5)
$m = (2 + 5) - 3$ (finite 5)
$m = 7 - 3$(finite 5)
$m = 4$ (finite 5)

10. $b + 20^o + 110^o = 180^o$
$b + 130^o - 130^o = 180^o - 130^o$
$b = 50^o$

11. Try to observe the pattern of the sequence by looking at the difference between the numbers.

58, 33, 17, 8, 4

25 16 9 4
(5^2) (4^2) (3^2) (2^2)

Next number in the series = 8 – 4 = 4

12. Speed $= \frac{\text{Distance}}{\text{Time}}$

$= \frac{210\text{km}}{2\frac{1}{2}\text{hrs}}$
$= 210 \div 2\frac{1}{2}$
$= 210 \div \frac{5}{2}$
$= 210 \times \frac{2}{5}$
$= \frac{\overset{84}{\cancel{420}}}{\underset{1}{\cancel{5}}} = 84$

Hence speed = 84km/h

13. This is done through division

2	8	0
2	4	0
2	2	0
	1	

Hence $8_{ten} = 1000_{two}$

14. We find the multiples of 8 and 12 with 5 added to the multiples

$8 \times 1 + 5 = 13$	$12 \times 1 + 5 = 15$
$8 \times 2 + 5 = 21$	$12 \times 2 + 5 = 29$
$8 \times 3 + 5 = 29$	$12 \times 3 + 5 = 41$

The smallest common number is 29
Hence the required number is 29

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Alternatively: By finding the LCM

2	8	12
2	4	6
2	2	3
3	1	3
	1	1

LCM $= 2 \times 2 \times 2 \times 3 + 5$
$= 24 + 5$
$= 29$

15. Given principle, $P = 72{,}000/=$
Interest, $I = 3600/=$
Period of time, T = 1 year

Using $I = \dfrac{P \times R \times T}{100}$

$3600 = \dfrac{72{,}000 \times R \times 1}{100}$

Multiplying both sides by 100

$3600 \times 100 = \dfrac{72 \times R \times 1}{100} \times 100$

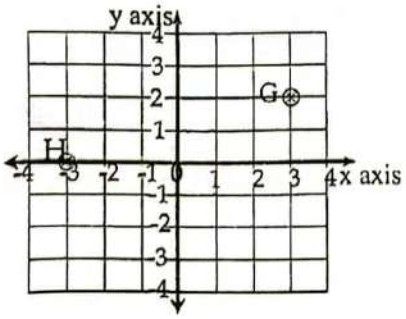
$72R = 3600 \times 100$

Dividing both sides by 72,000

$\dfrac{72{,}000R}{72{,}000} = \dfrac{\overset{1}{\cancel{36}}00 \times \cancel{100}}{\underset{2}{\cancel{72}}{,}\cancel{000}} = \dfrac{100}{20}$

$R = 5\ \%$

16. (a) Coordinates of G are G(3, 2)
(b) See the graph below for point H(-3, 0)



17. The time is by subtraction

Hours	minutes
14	27
− 11	38
03	49

Hence the train took 2 hours 49 minutes

18. $k + 2 < 6$
$k + 2 - 2 < 6 - 2$
$k < 4$
The solution set is
{....., -1, 0, 1, 2, 3}
OR {3, 2, 1, 0, -1, ...}

19. 19 plates cost sh. 34,200
Total sales = cost price + profits
= sh.34,200 + sh. 3,800
= sh. 38,000
Selling price per plate
$= \text{sh. } \dfrac{38{,}000}{19} = \text{sh.}2{,}000$

Hence he must sell at Shs. 2,000

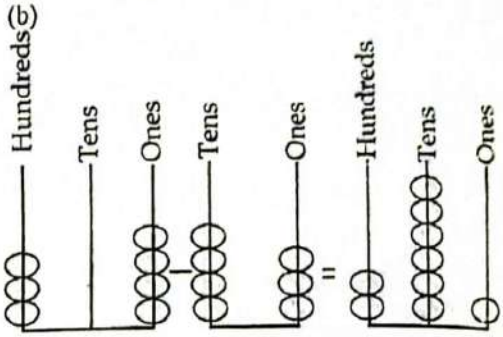
20. This is done by division.
Number of poles = 66 ÷ 1.5
$= 66 \div \dfrac{3}{2}$
$= \overset{33}{\cancel{66}} \times \dfrac{2}{\cancel{3}}$
$= 22 \times 2$
= 44 poles

SECTION B

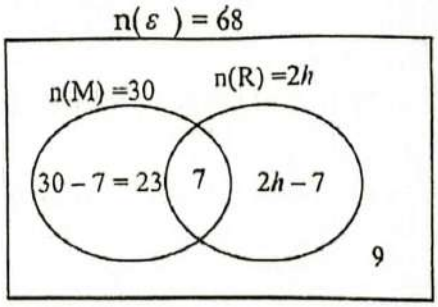
21. (a) 304 − 43

$$\begin{array}{r} 304 \\ -\ \underline{43} \\ \underline{261} \end{array}$$

(b)



22. (a) Completing the venn diagram



(b) Number of pupils who ate rice only = $2h - 7$
$30 + 2h - 7 + 9 = 68$
$30 + 9 + 2h - 7 = 68$
$39 + 2h - 7 = 68$
$39 - 39 + 2h - 7 = 68 - 39$
$2h - 7 = 29$
Hence the number of pupils who ate only rice is 29 pupils

23. (a) $\dfrac{2.4 \times 0.5}{0.12} = \left(\dfrac{24}{10} \times \dfrac{5}{10}\right) \div \left(\dfrac{12}{100}\right)$

$= \left(\dfrac{\overset{2}{\cancel{24}}}{1\cancel{0}} \times \dfrac{5}{1\cancel{0}}\right) \times \left(\dfrac{1\cancel{0}\cancel{0}}{\underset{1}{\cancel{12}}}\right)$

$= 2 \times 5 = 10$

(b) Making use of BODMAS
$0.37 + 2.6 - 1.03$
$= 0.37 + 2.6 - 1.03$

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$$\begin{array}{r} 0.37 \\ +\ \underline{2.60} \\ \underline{2.97} \end{array}$$

$$\begin{array}{r} 2.97 \\ -\ \underline{1.03} \\ \underline{1.94} \end{array}$$

Hence $0.37 + 2.6 - 1.03 = 1.94$

$\angle BAQ = 55^\circ$ (corresponding angles are equal)

$c + 116^\circ = 90^\circ + 55^\circ$

(sum of two interior angles is equal to the opposite exterior angle)

$c + 116^\circ = 145^\circ$

$c + 116^\circ - 116^\circ = 145^\circ - 116^\circ$

$c = 29^\circ$

Alternatively;

$c + 116^\circ + \angle PAR = 180^\circ$

But $\angle PAR + \angle RAQ = 180^\circ$

$\angle PAR + 145^\circ = 180^\circ$

$\angle PAR + 145^\circ - 145^\circ = 180^\circ - 180^\circ$

$\angle PAR = 35^\circ$

Now $c + 116^\circ + 35^\circ = 180^\circ$

$c + 151^\circ = 180^\circ$

$c + 151^\circ - 151^\circ = 180^\circ - 151^\circ$

$c = 29^\circ$

25. The container given is a cylinder.

Volume of a cylinder $= \pi r^2 h$

Volume of container $= \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \times 20$

$= 22 \times 7 \times 20$

$= 11 \times 7 \times 10$

$= 770\ cm^3$

Quantity of oil sold = 15.4litrs

But 1 litre = $1000cm^3$

15.4litres of oil $= 15.4 \times 1000$

$= 15400cm^3$

Number of containers sold $= \frac{15400cm^3}{770cm^3}$

= 20 containers

26. Total expenditure = Sh. 30,000 – sh. 9,250

= Sh. 20,750

Total cost of sugar = 2 × 4,000

= sh. 8,000

Total cost of 3 loaves of bread

= total expenditure – total cost of sugar and milk

= 20,750 – (8,000 + 2,250)

= 20,750 – 10,250

= Sh. 10,500

Unit cost of a loaf of bread $= \frac{10,500}{3}$ = sh.3500

Number of litres of milk $= \frac{2,250}{1,500} = 1\frac{1}{2}$ litres

Completing the table;

Item	Unit cost	Total cost
2kg of sugar	Sh. 4,000 per kg	Sh.8,000
3 loaves of bread	Sh. 3,500 per loaf	Sh. 10,500
1½ litres of milk	Sh. 1,500 per litre	Sh.2,250
Total	Expenditure	Sh.20,750

27. (a) Establishing a table of results

From A to B

Time	11:30a.m	12:30pm	1:30pm	2:10pm
Distance	0 km	60km	120km	120km

From B to C

Distance covered = 96km

Total distance covered from A to C = 120km + 96km

= 216 km

(b) Time taken from B to C $= \frac{\text{Distance}}{\text{Speed}}$

$= \frac{96}{64} = 1\frac{1}{2}$ hours

Arrival time at C = 2:10 pm + 1hr 30min

= 3: 40pm

28. Mean mark $= \frac{\text{Total marks scored}}{\text{Total number of pupils}}$

$= \frac{40 \times 2 + m \times 6 + 60 \times 3 + 70 \times 3}{2 + 6 + 3 + 3}$

$= \frac{80 + 6m + 180 + 210}{14}$

$= \frac{470 + 6m}{14}$

But mean mark = 55

Hence $\frac{470 + 6m}{14} = 55$

Multiplying by 14 on both sides;

$14 \times \frac{470 + 6m}{14} = 55 \times 14$

$470 + 6m = 770$

$470 - 470 + 6m = 770 - 470$

$6m = 300$

$m = \frac{300}{6} = 50$

29. Number of goats : cows : sheep

= 4 : 3 : 5

Total ratio value = 4 + 3 + 5 = 12

Let x = number of goats

Then, number of sheep = $x + 40$

$\frac{\text{Number of goats}}{\text{Number of sheep}} = \frac{x}{x+40}$

$\frac{x}{x+40} = \frac{4/12}{5/12}$

$\frac{x}{x+40} = \frac{4}{12} \times \frac{12}{5}$

$\frac{x}{x+40} = \frac{4}{5}$

By cross multiplication;

$5x = 4(x + 40)$

$5x = 4x + 160$

$5x - 4x = 4x - 4x + 160$

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$x = 160$

Number of sheep $= x + 40$

$= 160 + 40 = 200$

Let number of cows $= y$

$$\frac{\text{Number of goats}}{\text{Number of cows}} = \frac{160}{y}$$

$$\frac{160}{y} = \frac{4/12}{3/12}$$

$$\frac{160}{y} = \frac{4}{\cancel{12}} \times \frac{\cancel{12}}{3}$$

$$\frac{160}{y} = \frac{4}{3}$$

By cross multiplication;

$160 \times 3 = 4 \times y$

$$y = \frac{\overset{40}{\cancel{160}} \times 3}{\underset{1}{\cancel{4}}} = 40 \times 3$$

$y = 120$

Hence there are 160 goats, 120 cows and 200 sheep on the farm

Alternatively:

Goats = 4 parts

Cows = 3 parts

Sheep = 5 parts

Total parts = 4 + 3 + 5 = 12

Sheep = 5 – 4 = 1 more part than goats

1 part = 40

12 parts = 40 × 12 = 480

$$\text{Goats} = \frac{4}{\cancel{12}} \times \overset{40}{\cancel{480}} = 4 \times 40 = 160 \text{ goats}$$

$$\text{Cows} = \frac{3}{\cancel{12}} \times \overset{40}{\cancel{480}} = 3 \times 40 = 120 \text{ cows}$$

$$\text{Sheep} = \frac{5}{\cancel{12}} \times \overset{40}{\cancel{480}} = 5 \times 40 = 200 \text{ sheep}$$

30. (a) Area of a parallelogram

$= \text{length} \times \text{height}$

$= 6\text{cm} \times 16\text{cm}$

$= 96\text{cm}^2$

(b) Using the same area of the parallelogram;

Let length DY $= y$ cm

$y \times 12 = 96$

$12y = 96$

$$y = \frac{96}{12} = 8$$

Hence Length DY = 8cm

31. Let x = cost a pineapple

Item	Pawpaw	Mango	Pineapple
Cost	$80 + \frac{2x}{3}$	$\frac{2x}{3}$	x

Total cost of the items = Sh.4,300

$$80 + \frac{2x}{3} + \frac{2x}{3} + x = 4{,}300$$

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$$80 - 80 + \frac{2x}{3} + \frac{2x}{3} + x = 4{,}300 - 800$$

$$\frac{2x}{3} + \frac{2x}{3} + x = 4220$$

Taking LCM the left hand side

$$\frac{2x + 2x + 3x}{3} = 3500$$

$$\frac{7x}{3} = 3500$$

Multiplying both sides by 3

$$3 \times \frac{7x}{3} = 3500 \times 3$$

$$7x = 350 \times 3$$

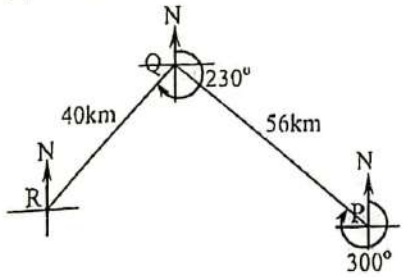
$$x = \frac{\overset{500}{\cancel{3500}} \times 3}{\underset{1}{\cancel{7}}}$$

$$x = 500 \times 3$$

$$x = 1500$$

Hence the cost of pineapple is Sh. 1500

32. (a) Rough sketch



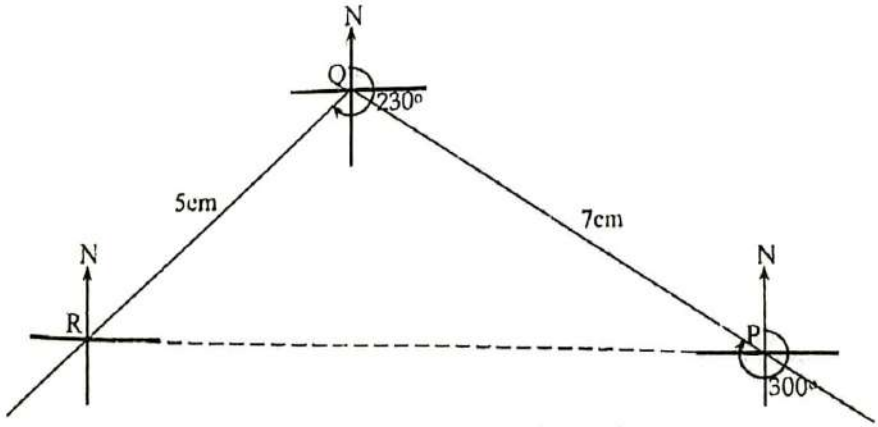
Drawing to scale;

Distance PQ = 56km

$= \frac{56}{8} = 7\text{cm}$

Distance QR = 40km

$= \frac{40}{8} = 5\text{cm}$



(b) Bearing of R from Island P = 180° + 92° = 272°

Scanned with CamScanner