



KINGCOLLINS SECONDARY SCHOOL

ACADEMIC AND QUALITY ASSURANCE DEPARTMENT

FORM FOUR WEEK SIX HOME PACKAGE

Time: 4th May – 8th May 2020

1. Answer **ALL** questions in this paper according to your subject combination.
2. All workings should be written in the respective subject exercise book.
3. Any need for consultation use the following phone numbers for teachers.

- i. Sir Yohana 0769962485
- ii. Sir Zabron 0757057265/0621912238
- iii. Sir Msigala 0769622985/0684716417
- iv. Sir Lupembela 0684874330/0757219175
- v. Sir Lwaka 0752787754
- vi. Sir Tumain 0766598767
- vii. Sir Nicolaus 0768078981/0625609368
- viii. Sir Elikana 0767033979
- ix. Sir Martine 0759053233
- x. Sir Mbena 0658228822
- xi. Md. Leilah 0787438305
- xii. Sir Kdibuka 0693113996

KISWAHILI

1. Uliporejea tu nyumbani wakati wa likizo hii ya kupisha ugonjwa wa Covid – 19 unaosababishwa na virusi vya Corona kulifanuka kikao cha kwanza cha harusi ya dada yako Gift Godfrey. Wewe uliteuliwa kuwa katibu wa kikao hicho, kwa sababu ya kuongezeka kwa wagonjwa wa Covid – 19 nchini harusi hii inatarajiwa kufanyika mwezi wa 11 badala ya mwezi wa 9 kama ilivyokubaliwa hapo awali. Andika kumbukumbu za kikao hicho cha pili kilichofanyika jana.
2. “Kuna tatizo kubwa la kimtazamo kuhusu lugha ya Kiswahili miongoni mwa wanaisimu hasa kuhusu asili yake”. Jadili kauli hii kinagaubaga kwa hoja nne.
3. Mfundishe rafiki yako Rehema Mbila jinsi ya kutunga ngonjera (hoja sita) na jinsi ngonjera inavyotofautiana na shairi (hoja tano).

BIOLOGY

1. (a) Differentiate between
 - i. Continuous variation and Discontinuous variation
 - ii. Acquired and Inherited characters
 - iii. Sexual –Limited characters and sex- influenced characters(b) If a male sickle cell anaemia marries a female who is normal, The F1 offspring were all normal, when the F1 offspring were allowed to mate the F2 offspring were found
 - i. Using genetic diagram show how the F2 offspring were obtained
 - ii. Write the phenotypes of F2 offspring ,Genotypes of F2 Offspring
 - iii. Explain the type of inheritance is that
2. (a)
 - i. What is evolution
 - ii. State three points of Lamarck theory of origin of life
 - iii. List down four (4) examples of vestigial structures(b) Explain any five method of family planning you know.

HISTORY

1. Discuss four causes of the first capitalist crises and show four of its consequences in Africa.
2. Discuss the role played by the Nationalist parties in the struggle for independence in Africa. (Give six points).
3. Discuss the three stages through which slave trade was abolished in East Africa during the 19th century.
4. Using specific examples, explain how the expansion of the Ngoni people during the nineteenth century affected the people of East and central Africa.(Give six points)

CIVICS

1. Privatization is both an asset and a disaster to Tanzanians. Justify this contention with vivid examples.(give eight points).
2. Clearly analyse the structure and five mandatory functions of the local governments in Tanzania.
3. Why is it necessary for a country to maintain its own culture? (Give six points).
4. Describe eight efforts made by the government of Tanzania to empower women.

BOOK KEEPING

1. A trial balance was extracted on 31 December 2008 and the totals did not agree, there being a Tshs 54 shortage on the credit column. As a result, a suspense account was opened. In January 2009, the following errors were discovered.
 - (a) Cash paid into the bank of Tshs 44 was entered on the credit side of both accounts.
 - (b) Insurance paid by cheque was entered as Tshs 87 when it should have been Tshs 78.
 - (c) Returns outwards of Tshs 90 was treated correctly in the creditor's account but was then debited to returns inwards.
 - (d) A sale of Tshs 158 on credit to J. Saunders was only entered into the sales account.
 - (e) Extra capital contributed in the form of Tshs 320 cash was entered correctly in cash but as Tshs 230 in the capital account.

Produce the journal entries needed to correct the errors and make corresponding entries, where appropriate, in the suspense account. Workings for ledger are compulsory.

2. A net loss for the year was calculated as Tshs 130. However, shortly afterwards the following errors were found. Calculate the net profit (or loss) once all the errors have been corrected.
 - a) Wages were overcast by Tshs 235.
 - b) Stock taken by the owner of the business for private use valued at Tshs 76 was not recorded.
 - c) A sale of a vehicle previously in use within the business for Tshs 750 was treated as a sale of stock.
 - d) Motor expenses of Tshs 39 were omitted from the accounts.
 - e) Rent received of Tshs 40 was treated as a sale.
3. The following trial balance was extracted from the books of M. Jackson on 30 April 2017. From it, and the note below it, prepare his Income statement for the year ending 30 April 20X7, and a statement of financial position as at that date ‘

	Dr	Cr
	TZS	TZS
Sales		18,614
Purchases	11,570	
Stock 1 May 2016	3,776	
Carriage outwards	326	
Carriage inwards	234	

Returns inwards	440	
Returns outwards		355
Salaries and wages	2,447	
Motor expenses	664	
Rent	576	
Sundry expenses	1,202	
Motor vehicles	3,400	
Fixtures and fittings	600	
Debtors	4,577	
Creditors		3,045
Cash at bank	3,876	
Cash in hand	120	
Drawings	2,050	
Capital		13,844
	<u>35,858</u>	<u>35,858</u>

Note:

Closing stock amounted to £4,000. Depreciation is to be charged at rates of 10% on cost for Fixtures and Fittings and 25% on cost for Motor Vehicles. Bad debts of £800

CHEMISTRY

- 10cm³ of 1M potassium hydroxide were mixed with 90cm³ of water to make solution x. 25cm³ of solution x were made to react with 25cm³ of hydrochloric acid. Calculate
 - Molarity of solution x
 - Molarity of acid
 - Concentration of the acid.
- 5g of sulphuric acid contained with calcium chloride as impurities was dissolved in one litre of water to make solution. 12.5cm³ of the solution was made to react with 25cm³ of 0.01M of sodium hydroxide. Calculate.
 - The mass of calcium chloride
 - Percentage purity
 - Percentage of impure.
- Explain why a fertile soil is not necessary to be productive. Give six reasons.
- Explain how climate contribute to soil formation?
- Mention ways of reducing the soil pH.

GEOGRAPHY

- State the difference between ground photography and oblique photograph. Use three points.
- Photographs can be identified and interpreted by using different ways. Discuss five of them.
- Read carefully the following data on cash crop production in Tanzania in tones(000) and answer the questions that follow.

Year	Coffee	Cotton	Tea
1990	200	100	300
1991	150	130	200
1992	120	100	100

- a) Present the data above using a grouped line graph
 - b) How is the grouped line graph of value to you? (Give three points)
 - c) Comment on the trend of production as observed from the graph
4. What would you do when preparing for field research?

BASIC MATHEMATICS

Instructions

1. Mathematical table and graph may be used
 2. Where necessary, use the following constants
 - Radius of the earth $R=6370$ km.
 - $\pi = \frac{22}{7}$
-

1. (a) Given 0.05473 correct into
 - (i) Three (3) decimal places
 - (ii) Three (3) significant figure
 - (iii) Standard notation
 (b) Express $1.\dot{2}1\dot{3}$ as a rational number
2. (a) Rationalize the denominator $\frac{\sqrt{3}}{\sqrt{2}-\sqrt{5}}$
 (b) Find the value of x for: $2^{2x+1} - 2^{x+1} + 1 = 2^x$
3. (a) Evaluate, $2\log 5 + 5\log 2 - \frac{1}{2}\log 16$
 (b) If $a-b = \sqrt{13}$ and $a^2 + b^2 = 25$ find the value of ab.
4. In an election 115 workers voted for chairperson and secretary, 30 workers voted for the secretary but not chairperson, 60 voted for chairperson but not secretary. If each worker voted for at least one candidate, determine the number of workers who voted for the secretary.
5. (a) If $6(ax - b)^2 = 54x^2 + 72x + c$. find the value a, b and c
 (b) Make c the subject of the formula in the equation $y = \frac{ax+b}{cx+d}$
6. (a) Given that x is inversely proportional to y and directly proportional to the square of z when $y=4$, $x=2$ and $z=3$ find the value of x when $y=3$ and $z=2$.
 (b) A bus travels 240 km using 16 litre of diesel. How many litres of diesel are needed to drive 90 km?
7. (a) The radio is bought for Tshs. 400,000/= and sold for 500,000. Find:
 - (i) The profit made
 - (ii) The percentage profit.

- (b) Find the time in which Sh. 300,000/= will earn an interest of Shs. 60,000/= if the interest rate is 10% per annum.
8. (a) Write down the nth term of the sequence $\frac{1}{2}, \frac{3}{4}, 1, \frac{4}{5}$
 (b) The first four term of an Ap are 2, (a-b), (2a+b+7) and (a-3b) respectively where a and b are constants find the value of a and b.
9. (a) If $(x-65^\circ)$ and $(4x+10^\circ)$ are complementary angles what is the value of x.
 (b) Let A is an acute angle of right angled triangle ABC such that $\hat{B} = 90^\circ$ and $\text{Cos } \hat{e} = \frac{5}{13}$ find the value of $\text{Sin } \hat{A}$.
10. (a) Solve the following quadratic equation $2x^2+7+6=0$ by using the method of completing the square.
 (b) Solve for x if: $\frac{1}{x-2} - \frac{1}{x^2-4} = \frac{4}{5}$
11. The mass of 50 students from a certain school were recorded as shown below:

Mass (Kg)	10-12	13-15	16-18	19-21	22-24	25-27	28-30
No. of students	3	a	16	10	8	5	1

- (a) Calculate the value of a
 (b) Find mode
 (c) Use the assumed mean method to calculate mean (use assumed mean A = 17)
 (d) draw the cumulative frequency curve and from it estimate the median
12. Anna commenced business on 1st May, 2019 with Tshs. 300,000/= Cash
- | | |
|------------------------------------|-----------|
| May 1 Purchases goods for cash | 150,000/= |
| 1 paid carriage on goods purchased | 1,000/= |
| 5 Sold goods for cash | 130,000/= |
| 6 Paid carriage on sales | 1,500/= |
| 9 Cash purchases | 125,000/= |
| 15 Paid labourers in cash | 12,000/= |
| 20 Paid electricity | 500/= |
| 28 Cash sales | 10,000/= |
| 30 Paid water bills in cash | 450/= |
| 30 Payment made for purchases | 50,000/= |
- (i) Prepare and open ledgers
 (ii) Extract a trial balance
13. (a) A function f(x) is defined as:

$$f(x) = \begin{cases} 1 & \text{if } x \geq 0 \\ 2 & \text{if } x = 0 \\ -x & \text{if } x < 0 \end{cases}$$

- (i) Sketch the graph of f(x)
 (ii) State the domain and range of f(x)
 (iii) If is f(x) one to one function?

- (b) Given that $f(x) = \sqrt{2x + 1}$ find:-
- (i) $f^{-1}(x)$
 - (ii) The domain and range of $f^{-1}(x)$
14. The position of Abuja (Nigeria) and Bonn (Germany) to the nearest degrees are $(9^{\circ}\text{N}, 7^{\circ}\text{E})$ and $(51^{\circ}\text{N}, 7^{\circ}\text{E})$ respectively. Calculate the distance apart in:-
- (i) Nautical mile (N.m)
 - (ii) Kilometre (km)

COMMERCE

1. The importer Lema of Dar es salaam had the following information for the consignment sent to him on 31.03.2020
- Ex-works cost (cost of goods at factory) Shs 150,000
 - Carriage to exporter's port Shs 20,000
 - Dock handling charges (at exporter's port) 10% of the ex- work cost.
 - Loading charges Shs 3,000
 - Export duty is 20% of FAS price
 - Freight to DSM port 20% of FOB price
 - Insurance Shs. 50,000
 - Import duty is 5% of CIF price
 - Clearing and forwarding agent commission Shs. 17,620
 - Carriage to Lema's premises Shs. 40,000
- Compute the following:
- (a) FAS price
 - (b) FOB price
 - (c) C&F price
 - (d) CIF price
 - (e) FRANCO price
2. (a) Explain the following in relation to transportation
- (i) Dry port
 - (ii) Liner conferences
 - (iii) Common carriers
 - (iv) Motor way
 - (v) Demurrage
- (b) Despite the many accidents caused by bodaboda on the roads, they continue to be an important element of our transportation system. Give five reasons why this is so.
3. (a) Give three reasons why manufacturer may offer after sale services to his customers.
(b) Outline three advantages of after sale services as method of sales promotion to a customer.
(c) Highlight four limitations of after sale services as method of promoting product.
4. (a) How company is formed?
(b) Give five reasons for winding up a company by court.
5. Mention and explain six factors that impede attempts of Entrepreneurs to further expand the scale of operation in Tanzania.

PHYSICS

1 (a) (i) Define the following terms

- i. Transistor
- ii. Doping
- iii. Rectification

(b) What are the difference between conductor, a semi-conductor and an insulator in terms of their band energy?

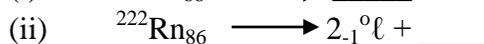
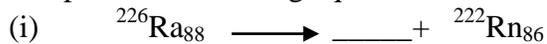
(c) (i) Differentiate between intrinsic and extrinsic semi-conductor

(ii) Draw the circuit diagram of the full wave rectifier using only two diodes and explain its mode of action.

2. (a) (i) Describe how X-ray tube is used to produce X-ray.

(ii) List four properties of cathode ray.

(b) Complete the following equation and for each name the type of decay



(c) A rectangular tank which measure 3m by 2m contain water to a height of 2m. Calculate

(i) Pressure

(ii) The thrust on the base of the tank

(d) Find the critical angle if angle of incident ray from water to air medium is 30° . The refractive index from air to water medium is $4/3$.

3. (a) (i) Distinguish nuclear fission and nuclear fusion

(ii) Mention two products of nuclear fission

(b)(i) What is the specific latent heat of fusion?

(ii) Calculate the amount of heat required to melt 800g of ice at 0°C . the specific latent heat of fusion of ice is 334400J/Kg .

(c)(i) State pressure law

ENGLISH LANGUAGE

1. Choose any two (2) poems you have read and discuss how the poet has portrayed in your society. Three (3) points from each.
2. Literature being part and parcel of human development always shape the human behaviour in the society. Discuss the above statement using two (2) novel you have read.
3. One of the challenges in today's African way of life is women struggle for their rights. Show the truth of the statement by using any two (2) plays you have read under this section. Give six points.