

CENTRAL KENYA NATIONAL SCHOOLS JOINT EXAM 2015
231/3 - BIOLOGY PAPER 3 MARKING SCHEME

1. (a) (i) Yellow ;
(ii) Blue ;
(iii) PH indicator;
- (b) (i) Colour changes from blue to green / yellow;
(ii) The gas is acidic;
- (c) (i) White precipitate formed;
(ii) Lime water / Calcium hydroxide;
(iii) Carbon (IV) oxide;
- (d) (i) (Aerobic) respiration ;
Reject anaerobic respiration.
(ii) Glucose + Oxygen; \rightarrow Carbon (IV) Oxide + Water + Energy
(iii) For provision of energy.
2. I (a) (i) epigeal
(ii) - cotyledons are above the ground
- (b) (i) - positive hydrotropism in roots
- positive phototropism in shoot.
(ii) Positive phototropism
Light causes lateral migration of auxins away from the light side, towards the darker side; high auxin concentration stimulates growth in the shoot ; thus the cells on darker side grow and elongated faster than the cells on the illuminated side ; causing the curvature towards light;
(iii) Provides yield energy required by the cell for various functions;
Positive hydrotropism.
Water causes auxins to migrate towards the side with water / moisture, auxin, are positively hydrotropic; low auxin concentration stimulates growth in roots, auxin high concentration inhibit growth in roots; the cells on the side away from the water grow and elongated faster; leading to curvature towards water.
(ii) Phototropism enables plants (shoot) to obtain optimum light for photosynthesis.
Hydrotropism by roots enables plants to absorb water and mineral salts for metabolic processes.
- II (a) plate 6 - stamen plate 7 - pistil
(b)(i) dioecium
(ii) facilitates pollination leading to variation within the species and increase in hybrid vigour.
(c)(i) wind pollination
(ii) Small inconspicuous bracts ; that are dull coloured
(d)(i) cross pollination.
(ii) - male and female parts occur in different plants.
- the plant pollen grains are sterile to the stigma of the same plant.
3. (a) (i) Pisces
(ii) Aquatic
(iii) Have gills for gaseous exchange
- (b) (i) fish gills, gills
(ii) Site for gaseous exchange
(iii) Operculum
(iv) - Have numerous gill filaments to increase the surface area for gaseous exchange.
- Have gill rakers to trap food particles and solid materials which may damage the delicate gill filaments.
- Have thin epithelium (blood visible) to reduce diffusion distance hence faster exchange of respiratory gases.
- (c) (i) Trachea
(ii) It is tubular; hollow ; it has ring of cartilage.
(iii) - Tubular/hollow to transport respiratory gases ;
- Have rings of cartilage to keep the trachea open / prevent from collapsing.
- Have smooth muscles to allow for stretching hence bending of the neck.

CENTRAL KENYA NATIONAL SCHOOLS JOINT MOCK - 2015
565/1 – BUSINESS STUDIES PAPER 1 MARKING SCHEME

1.
 - (a) Basic
 - (b) Basic
 - (c) Basic
 - (d) Secondary (4 x 1 = 4mks)
2.
 - (a) Inadequate capital (don't accept lack of:-)
 - (b) Inappropriate marketing strategies thus low sales.
 - (c) Unfair, unhealthy competition.
 - (d) Inefficient management skills.
 - (e) Inadequate manpower
 - (f) Inappropriate technology or poor technology. (4 x 1 = 4mks)
3.
 - (a) Price stability / fair prices
 - (b) Good quality products
 - (c) Constant supply
 - (d) Advice on how to use the product / Demonstration on use of product.
 - (e) After-sales services. (4 x 1 = 4mks)
4.
 - (a) They offer bank overdraft facilities.
 - (b) Enables the holder to pay creditors using a cheque without necessarily travelling to the bank.
 - (c) One can withdraw large sums of money without any notice.
 - (d) The holder can give postdated cheques if need arises thus enabling clearing of debts at future date.
 - (e) Do not have to maintain a minimal balance unlike in other accounts. (4 x 1 = 4mks)
5.
 - (a) Cannot carry a lot of cargo.
 - (b) Tend to increase congestion on the road.
 - (c) Not suitable for long distance journey.
 - (d) Contribute heavily to air pollution/noise pollution.
 - (e) They use fuel which is expensive to buy.
 - (f) They are prone to accidents and can lead to serious injuries. (4 x 1 = 4mks)
6.
 - (a) If the seller does not doubt credit worthiness of the buyer.
 - (b) If the seller wishes to attract more customers.
 - (c) If the seller is not in urgent need of money.
 - (d) If the trader want to use credit sales as a competitive tool.
 - (e) If the amount involved is small and the seller is not afraid of taking the risk. (4 x 1 = 4mks)
7.
 - (a) To facilitate fair distribution of income and resources .
 - (b) To discourage consumption of harmful goods.
 - (c) To correct balance of payment deficit
 - (d) To subsidize various development projects. (4 x 1 = 4mks)
8.
 - (a) Guillotine
 - (b) Composite machine
 - (c) Photocopiers
 - (d) Collator (4 x 1 = 4mks)
9.
 - (a) Increase in cost of production.
 - (b) Lack of government incentives e.g. subsidies.
 - (c) Decrease in price of complementary goods.

- (d) Withdrawal of firms from the market.
- (e) Incidences of strikes i.e. increase.
- (f) Inadequate factors of production. (4 x 1 = 4mks)

10. $CC = OP + I + P - D$
 $P = CC + D - OP - I$
 $470,000 + 100,000 - 350,000 - 100,000$
 $570,000 - 450,000$
 $= \text{SH. } 120,000$ (4 x 1 = 4mks)

- 11.
- (a) Practiced on a small scale.
 - (b) Leads to production of low quality goods.
 - (c) Low levels of output.
 - (d) Uses simple methods of production.
 - (e) Producer engages in multiple production.
 - (f) Goods produced are not for sale. (4 x 1 = 4mks)

- 12.
- (a) Diversification of the economy.
 - (b) Transforming the education system.
 - (c) Population control.
 - (d) Delocalization to reduce rural-urban migration.
 - (e) Encouraging the informal sector / Jua kali sector.
 - (f) Lending funds at low interest rates. (4 x 1 = 4mks)

- 13.
- (a) Advise on management
 - (b) Sell shares
 - (c) Performance barometer
 - (d) Good management
 - (e) Included in journals published by market
 - (f) Facilitates raising of more funds. (4 x 1 = 4mks)

14. (i) Mark up = $\frac{\text{Gross profit}}{\text{Cost of sales}} = \frac{10,000}{40,000} = \frac{1}{4}$ $\sqrt{\sqrt{\quad}}$ (1mk)

(ii) Margin = $\frac{\text{Gross profit}}{\text{Sales}} = \frac{10,000}{50,000} = 20\%$ $\frac{1}{5}\sqrt{\sqrt{\quad}}$ (1mk)

Or Margin = $\frac{1}{4+1} = \frac{1}{5}\sqrt{\sqrt{\quad}}$ (1mk)

(iii) Total expenses = $\frac{10 \times 50,000}{100} = \text{Sh. } 5,000$ $\sqrt{\sqrt{\quad}}$ (1mk)

(i) Net profit = $\text{Gross profit} - \text{Expenses}$
 $10,000 - 5,000 = \text{sh. } 5,000$ $\sqrt{\sqrt{\quad}}$ (1mk)

- 15.
- (a) Used to claim goods on port.
 - (b) Serves as evidence of contract between the seller and shipping company.
 - (c) Serves as evidence of receipt of goods for shipment.
 - (d) Shows condition of goods when they were availed for shipment.
 - (e) Proves ownership as goods by the importer. (4 x 1 = 4mks)

- 16.
- (a) Where the company covers many risks.
 - (b) When the possibility of the risk occurring are very high.
 - (c) Where there is need to spread various risks insured by the company.
 - (d) When the value of the item / property insured is too high and would not be easily compensated by the company.

(e) When it is mandatory requirement by the government. (4 x 1 = 4mks)

| | | |
|------------------------|----------------------|----------------|
| 17. <u>A/c Debited</u> | <u>A/c. Credited</u> | |
| (a) Cash account | Capital account | |
| (b) Purchases account | Bank account | |
| (c) Drawing account | Cash account | |
| (d) Creditor account | Bank account | (4 x 1 = 4mks) |

Business Studies Paper IMS 2 *Cekenas Joint Mock*

18.
(a) Changing the form of a commodity.
(b) Transporting commodities to where they are needed.
(c) Storing the commodities until its required.
(d) Selling or exchanging the commodity. (4 x 1 = 4mks)

19.
(a) High probability of achieving the set goals.
(b) Easy to obtain capital for expansion.
(c) Accessibility to the market is enhanced.
(d) Continuous production activities.
(e) Easy to invest anywhere in the country.
(f) Accessibility to raw materials. (4 x 1 = 4mks)

20.
(a) Offering subsidies
(b) Lowering taxes / tax holidays
(c) Use of quota system in imports.
(d) Enhancing security.
(e) Development of roads and communication networks.
(f) Training of business persons.
(g) Provision of electricity and water. (4 x 1 = 4mks)

21.
(a) Few sellers/firms.
(b) Firms are large in size.
(c) Interdependence of firms in the industry.
(d) Deal with products that are differentiated.
(e) Rivalry among firms resulting to price wars.
(f) Has a kinked demand curve. (4 x 1 = 4mks)

22.
(a) Competition for limited space.
(b) Continued renting of space becomes expensive in the long run rather than constructing.
(c) May involve other costs like transportation if its situated far.
(d) One has to go through a long documentation procedure while receiving or storing their goods. (4 x 1 = 4mks)

23.
(a) Carrying out testing of measuring apparatus to relate them with accuracy level of established standards.
(b) Putting stamp of approval to show the established standards have been made.
(c) Making regular inspection to ensure that the standards are adhered to.
(d) Persecute those who violate the set standards. (4 x 1 = 4mks)

24.
(a) Unfair competition
(b) Inadequate technology
(c) Unstable political environment
(d) Insecurity
(e) Natural calamities

- (f) Unfavourable socio-cultural environment. (4 x 1 = 4mks)
- 25.
- (a) Consumers may be tied to one trader who may not offer quality services.
 - (b) Encourage careless handling of goods by the consumer.
 - (c) Trader incurs extra expenses or costs thus reducing his profit margin.
 - (d) Trader sells his goods at high prices leading to low volume of sales in an effort to recover the after-sales costs incurred. (4 x 1 = 4mks)

CENTRAL KENYA NATIONAL SCHOOLS JOINT MOCK - 2015
565/2 – BUSINESS STUDIES PAPER 2 MARKING SCHEME

1. (a)

| Public Corporation | Private Limited Company |
|---|--|
| 1. Initial capital is usually provided by the government. | 1. Initial capital comes from the shareholders. |
| 2. Established through legislation by an act of parliament. | 2. Established by promoters according to the company's act. |
| 3. Managed by a board of directors appointed by the government. | 3. Managed by one or two directors elected by shareholders. |
| 4. Profits are issued to dividends and the government to the members. | 4. Profits are distributed and the shareholder on dividends. |
| 5. Non-profit motivated. | 5. usually established to earn profits. |

(b)

- Work flow – work should flow smoothly with minimal interruption.
- Supervision – easy and quick monitoring of staff to discourage absenteeism.
- Working space – each worker should have adequate working area for efficiency / concentration.
- Office appearance – should be attractive and pleasant to boost the morale of the workers and enhance their performance.
- Communication – easy passage of message from the seniors to the juniors / juniors to the senior for quick decision making.
- Minimal movement – smooth flow of works with reduced or no staff distraction hence increasing the overall performance.
- Others – Proximity to equipment
 - Legal requirements.

2. (a)

- Reduced road accidents as congestion of tankers on roads is reduced.
- Environmental pollution is reduced as pipelines do not emit gasses or smoke.
- Cost of handling oil is reduced since fewer workers are employed.
- Traveling by road to various parts of the country takes a shorter time due to reduced congestion on roads.
- There is no worry of return journey as pipes transport oil in one direction.
- It ensures regular supply after construction and they are more durable and operates 24 hours.
- Pipelines are not easily affected by bad weather, strikes and insecurity along highways (supply is permanently fixed).

(b)

- Statistical problems – data collection (National income) may be inaccurate hence wrong per capita income.
- Income distribution – if the income is in the hands of few, then we cannot say that people's welfare has improved.
- Nature of products – if the products are not meant to satisfy immediate wants of the people, then an increase in per capita income may not lead to a higher economic welfare.

- Change in the value of money – if the currency has been devalued there can be change in the value of money without necessarily representing any changes in the welfare of people.
- Social costs – some people may migrate from rural to urban areas straining family relationship / increase in industries may create pollution / congestion / other environmental disruptions / such development may make the average citizen worse off than was before the increase in per capita income.
- Quantity of goods and services produced – did the increase in per capita income come from increased production of goods and services.
- Change in population – if a static population is assumed, a false higher state of the economic welfare of the people will be the result.
- Difficulty in measuring welfare – people's wants / aspirations keep on changing / their tastes change over time, hence per capita income method is not the best measure of their welfare.
- People's extraneous works / over sacrifice – increased national income may mean less sleep and worries / people don't have time to enjoy what they produce / their welfare may be low despite the rise (National income).

3. (a)

- Auction – product is offered for sale to the members of the public and the highest bidder becomes the buyer.
- Haggling / bargaining – Buyer and seller negotiate over the price.
- Tendering – public is invited to make bids for the supply or sale of a particular product. The person who offers the most reasonable / lowest price usually wins the tender.
- Government intervention – government may impose tax or offer subsidies thus determine price. Government may also set a price level at which a product may be sold.
- Recommending or fixing by a producer – producer may determine the prices of their products and recommend or even require that they be sold at those prices.

(b)

- Cyclical unemployment – occurs due to relatively low general demand for goods and services.
- Structural unemployment – caused by changes in production methods, change in technology and changes in demand for goods and services.
- Frictional unemployment – occurs when people are unable to secure jobs due to barriers which hinder them from getting jobs.
- Seasonal unemployment – occurs due to relatively low demand for labour at certain times of the year.
- Involuntary unemployment – results from lack of jobs. People willing to work at the prevailing wages but work is not available.

Business Studies Paper 2MS

4. (a)

(i)

OKUMU TRADERS
TRADING, PROFIT & LOSS ACCOUNT
FOR THE YEAR ENDED 31ST DECEMBER 2012

| Dr | | Cr | |
|--------------------------|-------------------|-----------------------|-----------------|
| Opening stock | 30,000 ✓ | Sales | 390,000 ✓ |
| Purchases | 275,000 ✓ | Less Returns outwards | <u>10,000</u> ✓ |
| Add carriage outwards | 16,000 ✓ | Net sales | 380,000 ✓ |
| Less returns outwards | (6000) ✓ | | |
| Net purchases | 285,000 ✓ | | |
| Goods available for sale | 315,000 ✓ | | |
| Less closing stock | <u>(50,000)</u> ✓ | | |
| Cost of sales | 265,000 ✓ | | |
| G.P c/d | 115,000 ✓ | | |
| | <u>380,000</u> | | <u>380,000</u> |
| <u>Expenses</u> | | <u>Revenue</u> | |
| Carriage out | 8,000 ✓ | G.P b/d | 115,000 ✓ |
| Wages | 20,000 ✓ | Commission received | 36,000 ✓ |
| Bad debts | 3,000 ✓ | Discount received | 7,000 ✓ |
| Rates | 12,000 ✓ | | |
| Insurance | 19,000 ✓ | | |
| Discount allowed | 5,000 ✓ | | |
| Total expenses | 67,000 ✓ | | |
| Net profit c/d | <u>91,000</u> ✓ | | |
| | <u>178,000</u> | | <u>178,000</u> |

(✓ 16 x ½ = 8mks)

(ii)

OKUMU TRADERS
Balance Sheet
As at 31st December 2012

| <u>ASSETS</u> | | <u>Capital + Liabilities</u> | |
|-----------------------|------------------|------------------------------|------------------|
| <u>Fixed Assets</u> | | <u>Capital</u> | |
| Building | 450,000 ✓ | Capital | 689,000 ✓ |
| Furniture | <u>180,000</u> ✓ | Add Net profit | 91,000 ✓ |
| Total FA | 630,000 | Less drawings | <u>25,000</u> ✓ |
| <u>Current Assets</u> | | Net capital | 767,000 |
| Stock | 50,000 ✓ | <u>Current Liabilities</u> | |
| Debtors | 47,000 ✓ | Creditors | 52,000 ✓ |
| Bank | 250,000 ✓ | Bank overdraft | <u>210,000</u> ✓ |
| Cash | <u>40,000</u> ✓ | | 262,000 |
| | <u>387,000</u> | | <u>1,017,000</u> |
| | <u>1,017,000</u> | | <u>1,017,000</u> |

(8 x ½ = 4mks)

(b) Differences between shares and Debentures.

- Open Market Operations (OMO) – This is whereby the government through the CBK buys (to increase money supply) or sells (to reduce supply) government securities in the open market.
- Bank lending rates – to reduce money supply, the CBK increases the interest rates on loans by commercial banks and vice versa.

Business Studies Paper 2MS

3

Cekenas Joint Mock

- Selective Credit Control – CBK dictates which sectors within the economy are to be lend money e.g. Agriculture and which sectors not to lend.
- Legal reserve requirements – CBK requires all Commercial Banks to deposit in its fixed deposit account a certain amount of money to reduce money in circulation. This can either be raised or lowered depending on the economic performance.
- Moral persuasion – CBK may persuade the commercial banks to lend or not to lend.
- Liquid / cash ratio – CBK sets the liquid ratio that can be easily converted into cash.

(5 x 2 = 10mks)

5. (a)

- Production of similar goods
- Natural calamities
- Regional conflicts / wars
- Some members may gain more.
- Interferences by non-members e.g. developed countries.
- Lack of willingness by members to contribute financially.

^KIBOKO TRADERS

(b) Dr **THREE COLUMN CASH BOOK FOR THE MONTH OF JANUARY 2009** Cr

| Date | Details | Folio | D.A | Cash | Bank | Date | Particulars | Folio | D.R | Cash | Bank |
|---------------|----------|-------|-------------|---------------|----------------|---------------|-------------|-------|------------|---------------|----------------|
| 2009 Jan 1 | Balance | b/d | | 40,000 ✓ | | 2009 Jan 1 | Bal | b/d | | | 17,000 ✓ |
| 2 | Mutiso | | 2,000 ✓ | | 30,000 ✓ | | | | | | |
| 10 | Cash | C1 | | | 12,000 ✓ | 4 | Salaries | | | 16,000 ✓ | |
| 16 | Capital | | | | 56,000 ✓ | 10 | Bank | C1 | | 12,000 ✓ | |
| 17 | Sales | | | 24,000 ✓ | | 14 | Wayua | | 400 ✓ | | 39,600 ✓ |
| 20 | Mutua | | 1,632 ✓ | | 16,000 ✓ | 24 | Furnitures | | | | 10,400 ✓ |
| 20 | Odhiambo | | | 7,200 ✓ | | | Bank | C2 | | 40000 ✓ | |
| 30 | Cash | C2 | | | 40,000 ✓ | 30 | Bal | c/d | | 3,200 ✓ | 87,000 ✓ |
| | | | <u>3632</u> | <u>71,000</u> | <u>154,000</u> | | | | <u>400</u> | <u>71,000</u> | <u>154,000</u> |

NB: C₁ and C₂ if not indicated don't award.

(20 x ½ = 10mks)

6. (a)

- Flexible (more adaptable to changing circumstances)
- Simplicity (easy to manage / organize)
- Quick decision making
- Small size of the market.
- Nature of the products / personal services.
- Small initial capital.
- Few legal requirements.
- Need to retain control.

(b)

- Inadequate basic resources
- Lack of political goodwill.
- Failure to involve the local people in plan formulation stage.
- Natural calamities (floods, landslides) which may destroy properties.
- Over-reliance on donor funding.
- Lack of cooperation and coordination between the executing parties and formulators.