

HOME SCHOOLING MATERIAL

PASS A' LEVEL

GEOGRAPHY, ECONOMICS, LITERATURE & IT



YOUR GUIDE AWAY FROM SCHOOL

SOLUTIONS TO PAPER TWO (AICT004)

SUBSIDIARY ICT



1. WORD PROCESSING

SKILL	Paper size(A4)	Orientation	Data entry	Header	Footer	Page number	Background	Indentation	Spacing	Border	Font	Saving	Print	Total
EXPECTED	1	1	5	1	1	1	1	2	1	2	2	1	1	20
ACTUAL														

2. SPREADSHEETS

SKILL	Load	Entry	Heading	Merge and centre	Rename worksheet	Data entry 2	Formula	Cell formats	Background	Footer	Saving	Printing	Total
EXPECTED	1	3	1	2	2	1	4	2	1	1	1	1	20
ACTUAL													

3. DATABASE MANAGEMENT SYSTEMS

SKILL	Create	Table	Primary key	Fields	Data entry	Lookup wizard	Form	Picture	Report	Labels	Print	Total
EXPECTED	1	1	1	2	3	2	2	2	3	2	1	20
ACTUAL												

4. DESKTOP PUBLISHING

SKILL	Program	Page size	Background	Font	Calendar	Shapes	Name of designer	Background	Saving	Print	Total
EXPECTED	2	3	2	3	2	2	2	2	1	1	20
ACTUAL											

5. ELECTRONIC PRESENTATION

SKILL	Slide 1	Slide 2	Slide 3	Slide 4	Slide 5	Transition	Speaker note	Loop	Save	Total
EXPECTED	2	3	2	3	3	2	2	2	1	20
ACTUAL										



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SUBSIDIARY ICT PAPER ONE (AICT006)

- (a) Define a computer system.
(b) State any three components of a computer system.
- (a) Explain two ways how ICT can be used in hospitals.
(b) For each of the following statements, identify an ICT device which can be used:
 - Payment of electricity bills.
 - Monitoring security at home.
 - Obtaining news about what is happening around the country.
- (a) In which way have computers been made user-friendly for persons who are visually impaired?
(b) For each of the computer health risks given, state the cause and prevention.

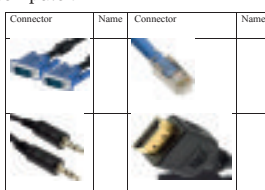
Health risk	Cause	Prevention
Repetitive Strain Injury		
Eye strain		

- (a) A computer user accidentally deleted a file from the desktop. State two ways this user can recover the file.
(b) The screenshot below represents the organisation on a hard disk partition.

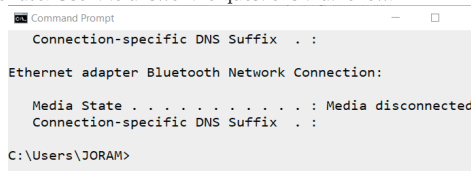


- (i) Write the file path of the document with the file name as MARY.
(ii) What is the file extension of the document named HISTORY?
- (a) Define the term file management.
(b) State the file extensions for each of the following type of files.
 - Executable file
 - Audio file

- (iii) Video file
- For each of the following list of devices, write the appropriate word in the space provided to indicate whether each device is used for Input, Output, Storage, Communication or Processing.
 - Touchpad
 - Router
 - SD card
 - Printer
 - CPU
- (a) Define a port.
(b) Identify the following connectors which are used on a computer.



- (a) (i) Define the term pipelining.
(ii) Why is pipelining important in a computer processor?
(b) Explain the importance of a system clock in a computer system.
- The screenshot below is obtained from a computer's user interface. Use it to answer the questions that follow.



- (i) Identify the user interface shown above.
(ii) State two advantages and disadvantages of using the user interface identified above.
Advantages.
Disadvantages.

- (a) Define an operating system?
(b) Mention three functions of Android on a smartphone.
- (a) Explain the term spyware?
(b) State three antivirus programs which can be used on a desktop computer.
- (a) Define the term Internet service provider.
(b) Mention three Internet service providers in Uganda.
- (a) Explain the term e-commerce.
(b) State three Uganda government services which can be accessed online.
- (a) Explain the term social media.
(b) State one example of social media.
(c) How can social media be used to enhance businesses in Uganda?
- (a) Explain the difference between bandwidth and throughput.
(b) Why is Bluetooth technology replacing infrared technology in mobile phones.
(c) Apart from a mobile phone, mention one device which uses infrared technology.
- (a) Explain the term computer network.
(b) Which type of cable would you use to connect the following devices at home?
 - A television screen to a satellite dish.
 - A laptop to a television screen.
 - A printer to a laptop.
- (a) Explain the term computer ethics.
(b) Write "plagiarism" or "not plagiarism" for the statements indicated below.

STATEMENT	WORD
A student getting online documents to create her research paper without crediting the original authors.	
A newspaper reporter changing a few words in a paragraph written by another author and including the revised text in an article without crediting the original author.	
A student including a few sentences written by another author in his essay, either indenting the quotation with a citation of the author.	

From page 1

18. (a) Define data type as used in database management system.
(b) Of the data types Text, Number, or Yes/No, which would be the most appropriate for a phone number field that needs to store data in the format (256) 788-390962? Explain your answer.
(c) Explain the importance of a primary key in a database.
19. Refer to the two relational database tables below and answer the following questions:

Employee table

Name	Location	Department	Salary
James	Kampala	Accounts	58000
Sharon	Gulu	Sales	44000
Timothy	Gulu	Accounts	62000
Shamim	Mbarara	Accounts	73000

Office table

Location	Manager
Gulu	Kenneth
Mubende	Joy
Mbarara	Mercy
Kampala	Shakilah

- (i) Which employee(s) work in accounts department and make at least 60,000?
- (ii) Which employees have Kenneth as their manager?
- (iii) Through which field did you relate the two tables to obtain employees managed by Kenneth?
20. (a) Identify two possible causes of system freezing.
(b) Mention three ways of keeping files in a system secure.



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LITERATURE IN ENGLISH PAPER ONE SOLUTIONS

SECTION I

- 1 (a) - Racial injustice/inequality.
- Freedom from slavery and all its tendencies.
- Segregation/discrimination.
- Poverty.
- Oppressive life; they live like exiles in their country.
- Undemocratic governance / tendencies.
(b) - Govern by democratic principles.
- Instant action/implementation, no more promises.
- Stop all manner and forms of racial injustice.
- Give blacks freedom and equality.
- Grant the Negroes citizenship rights.
- 2 - To practice the meaning of the creed/declaration to acknowledge that all people are equal and have them treated equally.
- To have a real sense of brotherhood regardless of race.
- That Mississippi, the epitome of injustice and oppression, will one day observe freedom and justice for all.
- That people one day/some day will be treated or judged by their actions and character, not race.
- That racism will be no more even in highly racist areas.
- That all forms of injustice shall be stopped and people shall be treated equally and give glory and honour to God.
- 3 (i) Momentous decree/historical/crucial/declaration
(ii) Cuffed/tied/held down by racism
(iii) Wealth/riches
(iv) Burning need/desire to act immediately
(v) Equal treatment regardless of race
(vi) Strikes/riots/demonstration
(vii) View and treat each other as one
(viii) Hot/heat filled/burning

SECTION II

1. The passage is a description of the strange experience or feeling of being hit by a bullet.
2. It is quite cumbersome as one needs to be alert and on the lookout for harm almost 24/7.

LITERATURE TEACHERS



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- One can lose their life at any moment in time.
- Just like their families and friends, they too, are scared of war/death, so one is better off injured than dead.
- 3 - **Point of view** – using the first person makes the experience more vivid and believable.
- **Through vivid description**, the speaker paints the picture of a war zone and the scenario of being hit by a bullet.
- **Register** – the passage is written with apt field war diction with careful choice of words as used in the military to create a more believable battlefield situation. For example, bullets, parapet, sentries, sand bags, etc.
- **Irony**, the speaker is for a long time aware he has been hit by a bullet, yet he can't tell exactly where. This depicts the feeling one experiences after being hit by a bullet.
- Et cetera
- TONE:**
 - Calm/resigned/ light-hearted – the speaker is not bothered or terrified at being shot. He seems to accept his fate.
 - It is sombre – when he demands to know where he has been hit.

MOOD:

- **Nostalgic** – him trying to recollect the day's happening.
- The mood is also **relaxed** initially as all the soldiers/sentries go about their routine before one of them is hit.
- It gets **humorous** at the point when the speaker says he "felt a vague satisfaction" that his wife will be pleased that he got wounded, so she would not worry about him dying soon at battle.
- Mood gets **grim** on the reader's realisation of where and how badly he has been hit.

SECTION III

- 1 (a) Second person
(b) The youth/young people
- 2 The poem is a pack of message/advice to the young people to seize opportunity while they are younger to do what they are supposed/expected to do rather than pushing those to the future by procrastinating. The speaker warns that they will not be young forever and that once certain opportunities are missed/lost, they will never be regained.
"And while ye may, go marry:
For having lost but once your prime,
You may forever tarry."
- 3 - The poet uses the symbol of "**rose buds**" to stand for young people and to depict their situation, that soon they will turn to rose bloom and wither.
- The **sun** is also used symbolically to portray the inconstancy of life ... that just like the sun shines, it does not do so forever. Within no time, it sets and so is youthful age.
4. - **Capitalisation** in the title is used to draw attention and for emphasis.
- **Punctuation marks** – much use of commas and semi-colons create a calm/contemplative mood, thus enabling the audience to reflect on the message and their choices as he enumerates the risks they stand to face one at a time, through the various pauses created by commas and semi-colons.

LITERATURE IN ENGLISH PAPER THREE (NOVELS)

PREPARING FOR A LITERATURE EXAMINATION

As you prepare for your examinations, refresh your mind by reading all the texts at least twice. Make use of group discussions. These will enrich your textual knowledge and enhance your ability to interpret questions. Guided discussions are recommended because you can be corrected where you go wrong. Consult your teacher where you get stuck.

To be original, do not entirely depend on commentaries. Regard them as a supplement to your own interpretation of the texts.

As you revise, take note of the following areas:

The title

- Titles are intriguing, suggestive and, therefore, appropriate if well thought out.
- On first contact with any text, it is important to identify whether the title is: symbolic, ironic, descriptive, metaphorical and derived from the name of the main character or if it is to be literally understood.
- Cite incidents in the text where reference to the title is made.
- Determine the suitability of the title to the text. The title should relate to and hint at the plot, central conflict and themes of the text.

Themes

- Study the major themes in the text and the ideas that contribute to the development of the theme.
- A theme should be a life issue that is predominant in the text; not every small idea should be considered a theme.

Setting

- A thorough understanding of when and where events in the story occur should be exhibited. Knowledge about historical, social and physical setting is essential.
- Determine how the writer uses setting to develop themes and to convey his message.
- Take note of outstanding characteristics of the setting in a given text. It may be physical environment, a war situation, a shift from one geographical location to another.

Plot

- Have thorough knowledge of how the events are linked to form the story
- Study the ending of a text and compare it with what you expected. This will enable you to determine whether the ending is satisfactory, considering the author's intention.
- Trace the development of characters and themes alongside the plot.

Characters

- Review character traits and character development.
- Determine role or contribution of characters to the development of the different aspects of the text.
- Pay attention to how characters connect with one another (character relationships).

Narrative techniques

- Identify and describe the narrative perspective/voice, for example, first person narrator or the omniscient narrator.

- Identify other narrative techniques, for example, dialogue, description, symbolism, irony, use of letters, among others.
- It is always important to show the effectiveness of the techniques to achieve the writer's intentions.
- Relevant examples of the technique should be cited and a thorough discussion made of their effectiveness.

HOW TO ANSWER ESSAY QUESTIONS

These questions require detailed analysis of the literary elements/aspects of the play/novel like title, setting, plot, character and characterisation, themes, narrative techniques, emotions/ feelings, atmosphere, relevance to the contemporary society and lessons derived from the book. The student is expected to demonstrate an in-depth understanding of the text and critical terms. Vague statements that are not supported with textual evidence score no marks. Narrating what the plot says without analysis also scores no marks.

Below are tips on the art of answering essay questions

Choice of question

- ☞ Study each question carefully
- ☞ Identify the task(s) in each question.
- ☞ Give considered thought to each question set and then select the one on which you have rich knowledge.

Answering the question

- Note key points using single words or short phrases.
- Think about how you are going to arrange your answer.
- Write your essay thoughtfully, referring to the question.



- Spread out the allotted time to cover the questions evenly.
- Answer only the required number of questions.

What you should do or avoid doing when writing your essay.

- Write an introduction to your essay. In the introduction, identify the task(s) in the question.
- Write neatly.
- Write simply and clearly. Avoid using flowery language.
- Do not give a plot summary.
- Avoid long, rumbling sentences and paragraphs.
- Illustrate your answer by finding appropriate quotations from the text and making references to incidents in it.
- Paraphrase where you are not sure of the words spoken by the character.
- Relate the quotation or evidence to the task.
- Give the full title of the book you are referring to, for instance, *The Moon Also Sets*, but not just, *The Moon...*
- Do not skip lines or use sub-headings.
- Write words in full, not short forms like don't for do not.
- Write a continuous and connected essay.
- Use the present tense when appreciating people and events in a book.

Types of essay questions and their approaches

- **Discuss**, either after a quotation or as part of a question requires the candidate to explore or analyse the truth of the essay topic or assertion in the question.
- **Examine and assess** questions require that you closely look at both or all sides of the case or issues in the question. You should write knowledgeably and critically about the issue or character with a view of portraying what is morally and humanly acceptable.
- **Contribution of an episode, incident or role of a character.**

Here, the candidate is required to illustrate the way in which the episode or character fits in and contributes to the wider effect of the novel. The incident or character may contribute effectively to the plot, our knowledge of some characters, themes of the play, feelings, the author's intention and some lessons.

- **Extent questions** like To what extent..., How far... require that you establish the extent from the outset of your essay in the introduction. The extent should reflect the writer's intention and your conviction. Spend time to prove the extent you have stated.
- **Do you agree** questions necessitate one taking one side. Take a stand. You either agree or disagree. It may appear to be a free response question, but be guided by the author's intention in the text. Do not contradict yourself. Provide reasons and evidence from the text to convince the examiner to see your side as the correct side.
- Questions about **setting** require that you handle all the types of setting in the play, but most importantly, time setting and physical setting in relation to character development, etc.
- **How effectively the novelist has used a narrative technique** requires that for every example cited, it should be connected to the aspects of the novel that are developed.
- **Do you find the ending satisfying?** The ending is always satisfying. Describe the ending by citing the circumstances that build up to the ending of the play. Assess how the ending is appropriate, considering the resolution of the central conflict, moral issues raised, lessons the audience learns, good characters rewarded, poetic justice done to the evil characters and author's intention achieved.
- **Quotation/statement question.** This is a question based on words spoken by a character in the text. It requires that you know who makes the statement and to whom, the context

in which the words are spoken and in which circumstances. Then give the validity of the statement basing on what the character goes through in the play.

A STANDARD ESSAY

A standard essay in Literature Paper 3 must have the features below.
Wide scope: This is a clear demonstration of your knowledge of the book you have studied and ability to sustain the essay. At least four pages of a write-up for the chosen question are adequate.

Relevance: This is realised when right from the outset you have interpreted the question well and have identified the tasks in it.

Analysis and discussion: Use your knowledge of the text to discuss the issues in the question. Answering a question in essay form requires critical thinking and cross-examination.

Comprehensive and detailed approach: Explain your points amply; do not gloss over issues.

Illustration: An authentic answer must use evidence from the text, lest it remains a rumour. You can illustrate your answer by referring to particular incidents, moments, character situations and statements in the book.

Systematic organisation: The essay must be well developed. One sentence paragraphs are a camouflage of outline-form of answer. A point or related points must be dealt with in a substantial, but not too long a paragraph.

Correct attitude/appropriate value judgment: Your appreciation of the issues and characters in the book must be morally, ideologically humanly apt.

Try this out

Thomas Hardy: *Tess of the d'Urbervilles*

Question:

What role do Tess's parents play in determining her fate?


ECONOMICS PAPER ONE ANSWERS (AEC0005)




SECTION A

- Factor Mobility** refers to the ease with which a factor of production can change/move from one occupation or geographical location to another.
 - The following factors affect mobility of capital:
 - Level of development of infrastructure.
 - The level of income.
 - Level of savings and investment.
 - Political atmosphere.
 - Level of entrepreneurship.
 - The rate of inflation.
 - Size of the market.
 - Availability of investment incentives.
 - The degree of accountability.
 - The level of capital inflow and capital outflow
 - Existing stock capital.
 - Demonstration effects in consumption.
 - Cultural factors/degree of conservatism.
 - Level of interest rate on loans or savings.
 - The level of monetisation of the economy/the size of the subsistence sector.
 - The land tenure system.
 - The state of technology.
 - Population census** refers to the official physical counting of people in a country after a given period of time.
 - Factors that hinder the operation of census in an economy may include:
 - Limited skilled labour.
 - Poor infrastructure hindering the movement of enumerators.
 - Concealment of information about e.g. number of spouses, children etc.
 - Remoteness of some areas, making them inaccessible
 - Limited funds allocated to the activity.
 - Existence of many illegal immigrants who are reluctant to provide information.
 - Insecurity/political unrests in some areas.
 - Conservatism/cultural/religious beliefs against census.
 - Political interference which may lead to sabotage.
 - Inadequate equipment e.g. computers.
 - Failure to obtain adequate information from citizens abroad.
 - Corruption/diversion of funds.
 - Poor housing distribution without clear demarcation
 - Critical minimum effort** is the minimum investment or sacrifice which is required to attain or raise massive capital stock necessary for an economy to take off.
 - Factors that limit the application of the big push theory in developing economies.
 - Limited basic infrastructure.
 - Political instability in some areas.

ECONOMICS TEACHERS



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- High level of conservatism
- Poor land tenure system/Uneven distribution of land.
- High levels of corruption/low levels of accountability.
- Weak policy implementation machinery.
- Poor technology.
- Limited capital.
- Limited skilled labour.
- Small markets.
- Limited entrepreneurial skills.
- Poor investment climate, for example, high taxes and limited subsidisation act as a disincentive to promising industrialists..

(d) (i) A **closed shop** is a trade union that requires employees to register with it if they are to be employed or remain in employment **OR** It is a trade union where membership is restricted to workers with particular skills/professions e.g. Uganda Law Society. This implies that if a worker is to be employed in a given line of occupation, he/she has to first become a member of the trade union **while/whereas** yet an open shop is a trade union which does not require workers to join as a condition to be employed or remain in employment. It is one where membership is open to all workers irrespective of their skills/professions.

(ii) **Reasons for the rise in the number of trade unions in LDCs.**

- Improved trust due to increase in the level of accountability within the leadership.
- Improvement in the transport and communication which has improved co-ordination.
- Increase in the sources of finance to run activities.
- Improvement in co-operation among members.

- Increase in the employment levels.
- Increase in awareness of workers.
- Improvement in the political stability in many developing countries.
- Improvement in strength of trade union leadership.
- Workers' increased interest in trade union activities.
- Reduction in political interference/favourable government policies on trade unions.

(e) (i) A **national budget** refers to an estimate of the revenue government intends to raise and how it plans to spend it in a given financial year. **OR** A **national budget** refers to a planned government revenue and planned government expenditure in a financial year.

ii) The budget contains the following information;

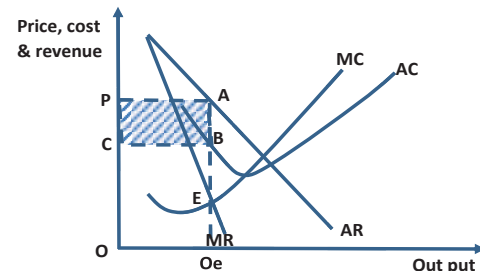
- Review of the previous financial year's socio-economic performance of the country.
- The current size of GDP and GNP.
- The current economic growth rate of the country.
- The desired economic growth rate in the near future.
- The country's B.O.P position.
- The objectives of the current fiscal budget.
- The monetary and fiscal strategies for the year.
- The contribution of each sector of the economy to GDP/National output e.g. agricultural sector, etc.
- The country's estimated revenue and expenditure of the next financial year.

SECTION B

2 (a) **How profits are maximised by a monopolist:**

A monopolist firm maximises profits at equilibrium point, where Marginal Revenue (MR) = Marginal Cost (MC).

Illustration



- Equilibrium Output (**OQe**) is determined at a point where Marginal Cost=Marginal Revenue (MC=MR).
- Equilibrium Price (OP) is determined at a point where the output line meets the Average Revenue (AR) curve.

Turn to page IV

From page III

- Cost (OC) is determined at a point where the output line meets the Average Cost (AC) curve.
- The monopolist firm earns abnormal profits (both in the short and long-run) since Average Revenue is greater than Average Costs (AR > AC) at equilibrium level of output as represented by the shaded region CPAB.

NOTE:
✓ Output line is the dotted vertical line in the illustration above.
✓ For monopoly, the demand curve MUST BE inelastic (steep) in nature.

(b) Implications of monopolistic firms in an economy:

Positive Implications (merits/advantages)

- There's limited duplication of resources due to absence of wasteful competition.
- Abnormal profits earned by the firm help firms to easily expand and increase output.
- Firms enjoy internal economies of scale, especially for natural monopolies where the market is only enough for one firm to operate.
- Research and innovations are encouraged due to the supernormal profits earned and the patent rights enjoyed by monopolists.
- Monopoly facilitates growth of local infant firms/industries because of patent rights accorded to them.
- Monopoly firms create more employment opportunities since they enjoy abnormal profits and are able to grow large and expand in size.
- The government raises more government revenue from high taxes charged on the abnormal profits earned by monopoly firms.
- Price discrimination practised by the monopolists benefits the low income earners to afford goods.
- Monopoly firms incur low operational costs due to limited advertising, hence a likelihood of charging low prices.
- Public utilities, such as water and electricity, are better provided by state monopolies at lower rates.

Negative Implications (demerits/disadvantages)

- Monopoly leads to exploitation of consumers in the form of charging high prices and poor quality output. This is because of limited alternatives.
- Results in income inequality because income distribution favours the monopolist (and employees).
- There is a limited variety of commodities in the market which limits consumer choice.
- Production of low quality goods due to absence of competition.
- In case of breakdown of a monopoly firm, the economy suffers from a shortage.
- Monopoly firms exert unnecessary pressure on the government, especially in decision-making which may affect the government's performance.
- Monopoly firms exploit workers by underpaying them since they may have no alternative workplaces.
- There is production at excess capacity as monopolists create artificial scarcity to charge high prices.
- Monopoly leads to unemployment and under employment of labour since other firms are restricted from joining the industry.

3. (a) How cost of living index (Price Index) is computed;

The cost of living index/price index is computed through the following steps

- Select a suitable base year. It should be a year where prices were relatively stable. Give a base year index of 100.
- Select an appropriate basket of goods/commodities. These should be goods that are widely consumed by households.
- Attach prices to the goods in the basket both in the base year and the current year.
- Calculate the price relatives/simple price index for each good/commodity. i.e.

$$S.P.I = \frac{\text{current year price}}{\text{Base year price}} \times 100$$

- Calculate the Average Simple price index. i.e.

$$A.S.P.I = \frac{\text{summation of price relatives}}{\text{summation of items/commodities}}$$

- Attach the weight to each of the commodities in the basket. Weight is the relevant importance that consumers attach to each commodity.

- Calculate the weighted index for each commodity in the basket. i.e.

$$\text{Weighted Index} = \text{Price Relative} \times \text{Weight.}$$

- Calculate the Average Weighted Price Index. i.e.

$$A.W.I = \frac{\text{summation of Weighted indices}}{\text{summation of Weights}}$$

NOTE: The steps MUST follow each other CHRONOLOGICALLY as above. Any alteration will result into loss of marks.

(b) Calculation

Commodity (Kgs)	2000 average price (shs)	1998 Simple PI	1998 average price (shs)	Weight
Rice	1000	100	1100	3
Sugar	500	100	700	5
Salt	400	100	500	6
Beans	800	100	1300	2
Maize	800	100	1050	4

- Simple price index (Price Relatives) for each commodity.

$$(ii) S.P.I = \frac{\text{current year price}}{\text{Base year price}} \times 100$$

Rice:

$$S.P.I = \frac{1100}{1000} \times 100 = 110$$

Sugar:

$$S.P.I = \frac{700}{500} \times 100 = 140$$

Beans:

$$S.P.I = \frac{1300}{800} \times 100 = 162.5$$

Maize:

$$S.P.I = \frac{1050}{800} \times 100 = 131.25 \text{ (131.3)}$$

Salt:

$$S.P.I = \frac{500}{400} \times 100 = 125$$

- Simple price index for 2000 (average simple price index);
A.S.P.I = $\frac{\text{summation of price relatives}}{\text{sum of all items}}$

$$= \frac{110+140+125+162.5+131.25}{5}$$

$$= 133.75 \text{ or } (133.8)$$

- Weighted Index for each commodity = Price Relative \times Weight

Rice;

$$W.I = 110 \times 3 = 330$$

Sugar

$$W.I = 140 \times 5 = 700$$

Salt;

$$W.I = 125 \times 6 = 750$$

Beans;

$$W.I = 162.5 \times 2 = 325$$

Maize;

$$W.I = 131.25 \times 4 = 525$$

- Weighted Index for 2000 (Average Weighted price Index)

$$= \frac{\text{summation of weights indices}}{\text{sum of weights}}$$

$$= \frac{330 + 700 + 750 + 325 + 525}{3 + 5 + 6 + 2 + 4}$$

$$= \frac{2630}{20}$$

$$= 131.5$$

- (a) Capital-saving/labour-intensive technique of production** is a production method which uses/employs relatively more units of labour than other factors of production especially capital, **while labour-saving/capital-intensive technique of production** is a production method which uses/employs relatively/proportionately more units of capital than other factors of production especially labour.

- Arguments for and against adopting labour-saving/capital-intensive techniques of production.

Arguments for/merits/advantages/positive implications

- Encourages mass production/economies of scale are enjoyed due to large scale production.
- Leads to production of high quality output because of the use of machines that are efficient and accurate.
- Increases the rate of resource utilisation of resources due to the use of heavy machinery.
- Encourages the development of heavy industries/leads to high rate of growth of the industrial sector.
- Increases labour efficiency and productivity. This is due to the use of specialised machines that increase skills and efficiency of labour. e.g. use of combine harvesters.
- Reduces the wage bill since the method employs less skilled labour relative to machines.
- Encourages standardisation of output. This is due to the use of advanced specialised tools and equipment.
- Promotes infrastructural development through the use of machinery and equipment which facilitate development of economic and social overhead capital like power dams, railways, roads etc.
- Promotes technological transfer/development. This is through movement of advanced equipment and machinery from MDCs to LDCs.
- It saves time and energy because machines are quicker.
- It minimises/avoids labour unrest/strikes. This is because machines are easier to control and manage.
- Improves the quality of labour/encourages development of skills through on-job training to use machines.
- Reduces labour-related costs.

Arguments against/disadvantages/demerits/negative implications.

- Leads to technological unemployment because of low labour absorption, worsening unemployment.

- Encourages foreign ownership and management of resources because most capital intensive industries tend to be foreign-owned, leading to profit repatriation.
- Requires complex skills that are not readily available in LDCs.
- Promotes income inequality and regional imbalance.
- It is costly to undertake because the method requires a lot of capital for installation and maintenance.
- Leads to quick exhaustion/depletion of natural resources because the technique is associated with large-scale/mass production, thus over-exploitation.
- Requires a large and developed market/leads to over-production. The method is associated with mass production, yet there is limited market in LDCs.
- It is associated with high social costs e.g. pollution of water due to poor disposal of industrial wastes.
- It is inappropriate in areas or sectors where human judgement is essential. E.g. in the process of harvesting fruits, machines cannot determine those that are ripe.
- It is not flexible. Once there is change in demand for a product, it is not easy to switch to the production of other commodities since there is high specificity in machines.
- Encourages rural urban migration because capital intensive industries concentrate in urban areas.
- Perpetuates economic dependence of LDCs on MDCs due to need for spare-parts, machinery, and expatriates.

NOTE: Maintain the present simple tense and in the explanation, show how a given argument is brought about by use of labour-saving/capital intensive techniques or use of more machines than human labour.

- Account for the divestiture of public enterprises in an economy.

- To increase output/economic growth. This is because privatised firms are more efficient due to competition.
- To increase government revenue from taxes.
- To widen consumer choice since privatised firms indulge in production of a variety of output.
- To reduce government expenditure. After privatisation, the government spends less (does not spend) on subsidising the formerly inefficient state owned enterprises.
- To reduce foreign dependency due to increased local/domestic production.
- To reduce corruption in enterprises. Private firms are strict on financial control and accountability.
- To reduce inflation. This is due to increased production of output by the highly efficient privatised firms.
- To promote innovations and inventions.
- To promote direct foreign investment. Some public enterprises are sold to private investors which boosts foreign investment, leading to increased capital inflow.
- To increase job creation/employment opportunities in the long run. Since privatised firms grow and expand, more jobs are created thus improving people's welfare.
- To increase efficiency in resource utilisation. Since the main aim of privatised firms is to maximise profits, they put the available resources to better and effective use.
- To reduce bureaucracy. Privatised firms make quick decisions to achieve efficiency and productivity.

NOTE: Divestiture is the same as total/outright sale of government owned enterprises/assets to private individuals. The need for divestiture requires you to give the objectives/reasons for sale of state enterprises to private individuals. These come from merits of privatisation. Begin your points with "TO, SO AS TO OR IN ORDER TO"

- Challenges/problems/constraints/hindrances faced in the divestiture of public enterprises.

- Corruption in the privatisation unit.
- Opposition from the public/ lack of the public's support, especially due to lack of sensitisation.
- Poor valuation of the public enterprises.
- Poor/sorry state of some state owned enterprises.
- Lack of well-developed/poorly developed capital markets through which shares can be sold to the public.
- Limited capital among the nationals to buy the enterprises, exposing the economy to foreign dominance.
- Unscrupulous/unserious buyers who don't pay fully, while others keep showing fluctuating interest.
- Political instability in some parts of the country which creates uncertainty and fear for loss of life and property.
- Small domestic market which discourages potential buyers/investors since there is less potential for profits.
- Political sabotage, especially from opposition politicians who attach a lot of negativities to divestiture.

NOTE: Explain how each problem mentioned affects the divestiture/privatisation process.

- Criteria used to determine a good tax system in an economy (features/characteristics of a good tax system).

- It should be fair/equitable. i.e. horizontal and vertical equity. Horizontal equity requires that individuals who are the same in all relevant aspects be treated the same and vertical requires that some individuals who are in



- position to pay higher taxes than other do so.
- It should be certain; the nature of tax, its base, amount, when to pay and where to pay should be known clearly.
- It should be convenient. Taxes should be collected at a time when the taxpayer has earned an income.
- Canon of economical/efficient. The cost of collecting taxes should be substantially lower than the actual tax realised.
- It should be comprehensive/diverse. There should be a variety of taxes so that all citizens contribute tax.
- It should be consistent or in line with national economic objectives.
- It should be elastic/flexible. It should change with change in the taxpayer's income.
- It should be neutral/impartial. All those with the same ability to pay should pay same amounts.
- It should be optimal. The taxpayers should get maximum satisfaction through public/government expenditure.
- It should be productive. A good tax system should be able to generate enough tax revenue for the government, but should not discourage investment/production.
- It should be simple to understand by both the taxpayer and tax collector.

NOTE: The question required qualities of a good tax system. Use the word "SHOULD" as a qualifying verb.

- (b) The need to levy taxes in an economy/reasons/objectives of taxation.
- To raise enough revenue for the government to meet her recurrent and development/capital expenditure.
 - To reduce income inequality through progressive taxation.
 - To protect domestic industries from unfair foreign competition through imposing high taxes on imports.
 - To accelerate economic growth through offering tax incentives to investors. This increases on the volume of output produced due to reduced production costs.
 - To control/regulate monopoly. By imposing either a specific tax or a lump sum tax on their profits, monopolists devise efficient ways of producing to increase their profitability.
 - To control inflation/to attain price stability. During inflation, heavy income taxes are imposed to reduce peoples' disposable income to reduce their purchasing power.
 - To improve the balance of payment position of a country. Imposing high taxes on imports to make them more expensive so as to discourage their importation.
 - To influence and regulate the level of exploitation of natural resources. e.g. heavy taxes are imposed on the most demanded resources so as to avoid their overuse.
 - To discourage production and consumption of undesirable goods.
 - To force individuals to save. E.g. NSSF. This is where individuals' incomes are compulsorily transferred to the state for public sector investment.

- To create more employment opportunities. This is achieved by subsidising domestic firms with revenues generated from taxes to lower the cost of production.
 - To promote balanced regional development through taxing the developed areas to finance backward areas.
7. (a) Account for the persistent inflation in an economy.
- Excessive issuance of currency. This creates excessive money supply which is not always followed by an increase in production of commodities.
 - Unfavourable natural factors that reduce supply from agriculture sector/natural hazards. Long dry seasons, floods etc greatly reduce supply of agricultural goods which creates a shortage of food items on the market.
 - Speculative tendencies of the business community. Anticipation of increased demand for goods in future makes traders deliberately hide or hoard goods so that they create artificial shortages in future.
 - Greed (desire) for excessive profits by traders/producers. Greedy traders always increase prices of goods even when it is not necessary to do so, causing inflation.
 - Importation of goods from inflation-prone countries. As importers get goods from countries experiencing inflation, they also sell them at increased prices.
 - Break-down of infrastructure. This creates delays in the distribution of commodities to market areas, which creates scarcity of commodities, thus high prices.
 - Political instability/turmoil which disrupts (limits) production, hence prices go up for the limited resources.
 - Rising costs of production/increase in production costs. Rising costs of fuel, wages, power expenses, and interest rates on loans result into a sharp rise in the costs of production, resulting in high price charges.
 - Excessive government expenditure, say, on presidential and parliamentary elections, salaries and allowances of politicians, etc. increases the volume of money in circulation. This increases people's purchasing power.
 - Depreciation of the local currency./Declining value of the local currency relative to other currencies. Depreciation of local currency makes imports more expensive because it becomes costly to buy foreign currency needed to import goods. This forces the importers to increase prices of imports.
 - Increasing inflow of incomes from abroad. Increased inflow of money from Ugandans who work and live abroad increases money in the hands of people.
 - Increased or excessive exportation of essential goods. There is increased demand for goods like beans, maize, sugar, cooking oil etc. in other countries. This creates scarcity of such products domestically thus an increase in prices of the few goods available in the local market.
 - Excessive or uncontrolled credit creation. Uncontrolled lending of money to the public by commercial banks creates excessive money supply in Uganda.

- Excessive borrowing by the government from the central bank to finance its deficit budget. In this case, the central bank is instructed to print and issue more money to ministries. This policy increases liquidity in the economy. People's purchasing power increases. Aggregate demand also rises, causing inflation.
- (b) Circumstances under which inflation may be desirable in an economy.
- When it promotes economic growth. Mild inflation encourages producers to increase output to make more sales.
 - When it results in an increase in the profits of producers.
 - When it stimulates inventions and innovations/when it encourages hard work among people. The rising cost of living created by inflation makes the public creative and hardworking so as to earn money and to survive during periods of inflation.
 - When it helps to reduce voluntary unemployment. Inflation increases the cost of living and this forces people to engage in income-generating projects.
 - When it promotes investment levels /when it promotes utilisation of resources. Since producers desire to make more profits during periods of mild inflation, they may expand their investments to the use more resources.
 - When it helps an economy to overcome a depression. Mild inflation encourages producers to increase production which increases their incomes and are able to undertake further investment. This helps to pull an economy out of a depression.
 - When it promotes forced savings. The existence of inflation may compel the government to encourage people to start saving part of their income through compulsory saving schemes.
 - When it benefits the borrowers in an economy. Borrowers borrow money when it still has a higher value and pay back when its value is lower. Therefore, by the time borrowers pay back the money, they will have put it to more profitable use.
 - When it increases government revenue. In an attempt to reduce inflation, government charges higher taxes on the high income earners to reduce their purchasing power.
 - When more employment opportunities are created. Since investors are getting high profits from the mild inflation, they are able to expand their investments and this promotes the creation of more jobs for the people.
 - When it encourages mobility of labour. Due to the rising cost of living, workers strive to find better-paying jobs or occupations, which results in occupational mobility of labour.

NOTE: We extract the circumstances from the positive effects of inflation. Note that, it is only mild inflation that has positive effects. The presentation of points must be in a conditional/circumstantial tense. Therefore, begin with: WHEN OR IN CASE

ECONOMICS PAPER 2 (AECON006)

SECTION A

1. (a) (i) Distinguish between transfer payments and transfer earnings.
(ii) State three examples of transfer payments in Uganda.
(b) (i) Distinguish between economic growth and development.
(ii) State two factors affecting economic development in Uganda.
(c) (i) Define dualism.
(ii) Mention three features of dualism in Uganda.
(d) (i) Define net national income at factor cost.
(ii) Given that national income at market price is shs. 360 billion, indirect taxes are 40% of the national income at market price, subsidies are worth shs. 60 billion and the value of depreciation is a half the value of subsidies. Calculate Uganda's national income at factor cost.
(e) (i) Distinguish between commercial policy and monetary policy.
(ii) State two instruments of the commercial policy in Uganda.

SECTION B

2. (a) Explain the assumptions of price mechanism.
(b) What is the role of prices in allocating resources in Uganda?
(c) What are the limitations of price mechanism in allocating resources in Uganda?
3. (a) Describe the features of indirect production in Uganda.
(b) Examine the role of indirect production on the development of Uganda's economy.
4. (a) Discuss the rationale for measuring national income in Uganda.
(b) Why are some final products usually left out while compiling national income in Uganda?
5. (a) What are the indicators of disguised unemployment in Uganda?
(b) Account for a reduction in the level of disguised unemployment in Uganda.
6. (a) Explain the justifications for the allocation of a lot of funds to infrastructure development in Uganda's current budget.
(b) What factors may limit effective development of infrastructure in Uganda?
7. (a) Describe the process of credit creation in a uni-bank credit creation process.
(b) What factors have favoured the success of credit creation in Uganda?

GEOGRAPHY 2 SOLUTIONS (AGE0002)

SECTION A

1. Calculations for population density

$$\text{Population density (P.D)} = \frac{\text{Total population}}{\text{Area in km}^2}$$

Country	Area (km ²)	Total population ("000")	Population density (people/Km ²)
Nigeria	923,300	79,500	86.10
Niger	1,267,000	4,852	3.82
Ghana	238,500	9,866	41.36
Ivory Coast	322,500	6,673	20.69
Liberia	133,400	1,603	12.01
Mali	1,240,000	6,308	5.08
Mauritania	1,030,700	1,400	1.35
Sierra Leone	71,700	3,002	41.86
Burkina Faso	274,000	6,173	22.52
Togo	56,000	2,312	41.28
Benin	115,800	3,112	26.87
Senegal	196,200	5,100	25.99
Guinea Bissau	36,100	800	22.16
Guinea	245,900	5,143	20.91
Gambia	10,500	494	47.04

Turn to page VI



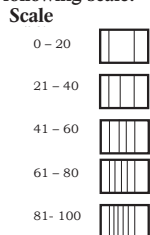
OSBERT RUTAGANDARA
TEACHER AND AUTHOR



TOM KIBIRANGO,
ST CATHERINE SS, BUJUUKO

From page V

NB: Group the densities and shade them in your base map following scale.



b) Merits of using the method.

- Gives good visual impression.
- Easy to draw since it involves few mathematical calculations.
- Easy to interpret.
- It can be used for comparison purposes.
- Its shows the location on a map.

Limitations of using the method

- Occupies large space compared to pie-chart.
- Time consuming while shading.
- Not easy to choose a suitable scale.
- Method is limited to population related data only.
- Method shows that population density changes abruptly at the boundary which is not true.

c) Nature of the population density as portrayed on the base map:

- Nigeria has the highest population density of 86.1 people/Km²
- Mauritania has the lowest population density with 1.35 people/Km²
- Sierra Leone, Togo, Ghana have the same population density of 41 people/Km².
- Guinea and Ivory Coast have the same population density of 20 people/km².
- Gambia has the second highest population density of 47 people/Km². This is a small country with growing population.

d) Reasons for the population density pattern displayed:

- Gambia's population density is high because her land area is small, yet the population is high. As the population increases, the land area does not, leading to high population density.
- Nigeria's population density is high because of high population of over 79 million people. This is due to high fertility rates, high birth rates, high immigration rates, low death rates due to improved medical services.
- The population density in Mauritania is low because it is desert country with few people. There a few economic activities in such desert regions.
- Mali and Niger have low population densities because they are desert countries.

SECTION B

2.

Approach

- ☐ Locate tropical region.
- ☐ Identify some of the countries within the tropics.
- ☐ Suggest reasons for this low agricultural productivity in the tropics.

Tropics are regions of the world of the earth surrounding the equator. They are delimited in latitude by the Tropic of Cancer in the Northern Hemisphere as 23.5° North of the Equator and the Tropic of Capricorn in the Southern Hemisphere at 23.5° South of the Equator.

Most of the countries within the tropics depend on agriculture in terms of exports and subsistence family survival, yet agricultural output per unit area is relatively low. This is attributed to the following factors;

- The majority of farmers still use rudimentary tools like hoes, digging sticks and oxen plough, which are low production farming tools. They cannot match the modern methods of farming like use of tractors.
- Some animal farmers still use poor methods of farming like nomadic pastoralism. They depend on nature for the success of farming, yet nature is unreliable. The Fulani of West Africa, for example, each year experience various unfavourable climatic conditions like prolonged drought.
- Unfriendly climatic conditions like prolonged drought conditions in the Sahel region leads to death of animals. In the central and southern states of Africa, such as

Zimbabwe, Zambia, Malawi, Mozambique, frequent failure in the rains lead to severe shortage of foodstuffs and starvation of the people. Also in eastern states like Kenya, Somalia, Ethiopia, Tanzania and Uganda, periods of prolonged drought affect the productivity of farming.

- The high population growth rates that characterise many tropical countries like Uganda, Kenya, Tanzania lead to land fragmentation, thus reducing agricultural output.
- The infertile soils in some regions in the tropical region lead to low productivity. The infertile soils require fertilisers, yet they are expensive and out of reach for some.
- Lack of adequate capital to invest in large scale farming. Money is needed to buy land, pay workers, buy farming inputs and purchase seed, fertilisers and irrigation.
- Majority of local farmers in the tropics lack the required skills and techniques. The training facilities which exist and available to local farmers sometimes are expensive.
- The land tenure system in most tropical countries limits agricultural productivity. For example, in some areas where there is communal ownership of land. There is less initiative in making the land more productive through use of modern and scientific methods of farming.
- Majority of people within the tropics practice subsistence farming to provide food for home use.
- Poor roads in the tropics is also responsible for low agricultural output. During rainy seasons most areas within the tropics are inaccessible. This leads to loss of agricultural produce which cannot access market in time.
- The political instabilities in some countries in the tropics like Somalia, DRC lead to low agricultural output as people are always on the run.
- Unsupportive government policies in some tropical countries. Most governments are prioritise military issues at the expense of modernisation of agriculture.
- The local farmers in the tropics are not protected against foreign competition from imported agricultural products.
- Majority of governments in the tropics have put less emphasis on developing local processing industries to add value to the agricultural produce before export. Crops like coffee, rubber, cotton, maize are largely exported in their raw form, thus fetching low revenue.
- Less government efforts in marketing agricultural output.
- Rampant pests and diseases which attack crops and animals, thereby reducing their productivity.

b) Possible means by which agricultural productivity could be improved.

- The governments should provide farmers with soft loans so that they can buy improved implements.
- Farmers should be encouraged to cross-breed their animals for better breeds of cattle.
- Irrigation farming should be done to ensure crop production throughout the year.
- Governments should set up cheap training institutions for farmers, especially in rural areas.
- Governments should construct and improve the existing roads to makes rural farms accessible for market.
- Governments should train more soldiers to ensure security so that crop production can go on uninterrupted.
- The governments should set up trade restrictions policies to protect local farmers from foreign competition.
- The governments should search for market from foreign countries to encourage local farmers to produce more.
- The governments should invest in research of pesticides to control pests and diseases.
- The governments should allocate more funds for improvement of agriculture productivity.

3.

Approach

- ☐ Introduce your work by identifying choice of fishing ground.
- ☐ Identify some of the countries covered by the fishing ground.
- ☐ Identify methods of fishing, species of fish caught and status of fishing.
- ☐ Show how the Pacific Ocean supports fishing.
- ☐ Talk about other factors that support fishing in relation to the case study.

EITHER:

The contribution of the Pacific Ocean to the development of Northwestern Pacific fishing ground.

North West Pacific fishing grounds cover an extensive area between 20°N and 70°N of the Equator. This covers countries like China, Hong Kong, Russia (U.S.S.R), Japan, South Korea and North Korea. It is the world's greatest fishing region. This is because there are probably more people employed in the fishing sector than in any other part of the world. Fish is exploited from East and South China Sea, yellow Sea, Sea of Japan. Fish species include herring, cod, sardines, tuna, shellfish and salmon, among others. The methods of fishing used include; trawling,

purse seining and drifting among others.

To a great extent, North West Pacific fishing ground has contributed to development of fishing in the following ways:

- The existence of the continental shelf which is well endowed with a variety of fish species like herring, cod, sardines, tuna, shellfish, salmon, mackerel, pollack and many others.
 - The sea of China and Yellow Sea are endowed with plenty of plankton as food for the fish. This helps in the survival and multiplication of fish hence promoting fishing.
 - Presence of warm Kuroshio current and cold Oyashio current, once they meet, they modify the climate suitable for fish metabolism.
 - The presence of the long continental shelf with shallow waters which are suitable for the development of fishing industries. For example shallow waters of the Sea of Japan.
 - Existence of an extremely long and irregular coastline with many bays, inlets and straits. These provide good site for establishment of fishing ports and villages.
- However, there are other factors that have led to the development of the fishing industry in the North West Pacific. These include:**
- The big population of countries like China, Japan, South and North Korea, Russia, which provides market for fish.
 - Presence of skilled and semi-skilled labour force.
 - Appropriate fishing technology which has helped in the modernisation of fishing industries in countries like China and Japan.
 - Modern methods of fishing such as drifting, seining and trawling.
 - Availability of adequate capital provided by the governments of China, Japan, Hong Kong required in the management of modern fishing industry.
 - Presence of many large and modern shipping yards which are well equipped and efficient provide the necessary fishing vessels to transport fish to market centres.
 - Research in relation to development with emphasis on fish breeding and restocking of the water resources.
 - Supportive government policies in relation to development of fishing like searching for market, financing fishing

Contribution of Pacific Ocean to the development of South East Pacific fishing ground.

South East Pacific fishing ground covers an area between 50 North of Equator and 550 South of the Equator. It covers countries like Ecuador, Peru and Chile. Species of fish include; anchovy the major fish species exploited, others tuna, bonito. Peru and Chiles fish catch is mainly for industrial purposes rather than for food. The methods of fishing used include; trawling, purse seining and drifting among others.

To a great extent, South East Pacific fishing ground has contributed to development of fishing in the following ways:

- The long continental shelves in South America with shallow waters have favoured the growth of plankton as food for fish. For example, Peruvian continental shelf is estimated to be well over 2,000 Km in length.
 - The presence of cold Peruvian (Humboldt) ocean current, which has creates cold and favourable climate suitable for development of fishing industry.
 - The presence of the rich continental shelf with a variety of fish species like the anchovy, tuna, bonito.
 - Presence of irregular coastline which has various bays, fiords and inlets. These have provided suitable sites for fishing ports and villages, for example Santiago, Arita.
 - Presence of largely smooth Pacific Ocean floor which favours modern methods of fishing like trawling.
- Presence of seabirds along the coast of Chile and Peru whose droppings called Guano is rich in nitrogen, potassium and phosphorous. These support the growth of planktons.

However, there are other factors that have led to the development of fishing industry in the South East Pacific. These include:

- Availability of modern fishing methods like trawling.
- Presence of ready market for fish from U.S.A, China and other European countries, especially for anchovy species.
- Establishment of a number of fish processing plants along the coast for example Callao, Chimbote in Peru.
- Availability of cheap water transport which helps in the transportation and marketing of fish
- Supportive government policy like searching for market, financing fishing, restricting fishing in particular seasons.
- Availability of large capital base from the government used to modernise the fishing industry.
- Presence of skilled and semi-skilled labour force.



4. (a)

Approach

- Introduce your work by identifying choice of case study.
- Locate your case study
- Identify species of trees and describe methods used in harvesting trees.
- Explain problems faced in harvesting forests in relation to your case study.

Problems facing harvesting of forests in Scandinavia

Scandinavia is a large region of northern Europe that is mainly made up of the Scandinavian Peninsula. It includes countries — Norway and Sweden, Denmark, Finland and Iceland. Geographically, the Scandinavian Peninsula is the largest peninsula in Europe and it extends from above the Arctic Circle at 66.5°N latitude up to the Baltic Seas.

The Scandinavian forests do not contain a wealth of species. The reason for this is the northerly location, plus the fact that after the glacial period, the sea forced most of the species to migrate Scandinavia, except for Denmark, from east and north. The devastation of the forests in the 19th century, followed by the intensive forestry practiced during the present century have both had an adverse effect on the diversity of species. The Scandinavian coastal conifer forest includes species like Pine, Fir, Larch, Spruce, and Hemlock.

Harvesting of tree in the Scandinavia is faced by the following problems

- Limited skilled and semi-skilled labour force. This is because Scandinavian countries are sparsely populated.
- The presence of Scandinavian mountains makes transport and communication difficult.
- The southern part is the closed canopy forest consisting of many closely spaced trees with mossy ground cover. This makes it difficult to harvest the trees using machines.
- During winter seasons, harvesting is impossible due to too much coldness and snow blocks communication routes.
- Dangerous wild animals (carnivores) that can kill humans such as wild cats (Siberian Tiger) and wild dogs.
- Existence of many climbing plants make harvesting difficult.
- Difficulty in lifting heavy big logs from the forest to the processing centre.

Problems facing harvesting of forests in the Democratic Republic of Congo

The Democratic Republic of the Congo (DRC), country located in central Africa. Officially known as the Democratic Republic of the Congo, the country has a 25-mile (40-km) coastline on the Atlantic Ocean but is otherwise landlocked. It is the second largest country on the continent; only Algeria is larger. The capital, Kinshasa, is located on the Congo River about 320 miles (515 km) from its mouth.

The Democratic Republic of Congo (DR Congo) has the greatest extent of tropical rainforests in Africa, covering more than 100 million hectares. The forests of the DRC represent 60% of the entire Congo Basin forests. About 45% of DR Congo is covered by primary forest, which provides a refuge for several large mammal species driven to extinction in other African countries. Overall, the country is known to have more than 11,000 species of plants, 450 mammals, 1,150 birds, 300 reptiles, and 200 amphibians. The trees are of hardwood and evergreen including species like Ebony, Mahogany and Mvule.

Harvesting of trees in the Democratic Republic of the Congo (DRC) is faced by the following problems

- Poor transport and communication, the equatorial rainforest is inaccessible, especially during rainy season.
- Tropical tree species such as Mahogany and Mvule are so heavy and, therefore, do not float on water-making transportation difficult.
- The major tree species in DRC which are highly demanded, such as Mahogany and Mvule, do not grow in pure soils, this present many exploitation problem in terms of selection felling.
- The major tree species which are highly demanded in international market have long gestation period.
- The heavy rainfall received throughout the year in the tropical rainforest lead to rapid multiplication of tropical pests like tsetse flies and mosquitoes. These spread diseases to lumber jacks like sleeping sickness and malaria, respectively. Therefore, the pests scare off lumber jacks.
- Unfavourable relief of DRC like the rugged terrain hinder effective use of water transport in the process of forest exploitation.
- Political instabilities and civil strikes scare off lumber jacks. Rebels hide in thick DRC forests.
- Low level of technology used in harvesting tree make it difficult. For example, it is difficult to harvest a huge Mahogany tree using a hand saw.

(b) Effects of forest destruction in the region chosen:

Effects of forest destruction

- Loss of trees makes global warming worse. Through photosynthesis, trees remove carbon dioxide from the air, produce oxygen and store carbon as wood. One tonne of carbon in wood or forest biomass represents 3.67 tonnes of atmospheric carbon dioxide recycled. We are creating warming, not only by putting more CO₂ into the air, but also by getting rid of trees that absorb and remove carbon from the air.
- Impact on ecosystems. Forests preserve water, soils, plants and wildlife. Their destruction aggravates droughts, soil erosion and pollution of watercourses. This causes extensive flooding and increased pest populations due to the ecological imbalance.
- Loss of species. Tropical forests contain at least half the earth's species, so their loss causes a dramatic loss of biodiversity. Clearing and destructive logging of forests is the single greatest cause of species extinction worldwide.
- Harm to water. Forests are natural dams that catch rainwater in their canopies and in leaves and litter on the forest floor, retaining and purifying rainwater. Forest logging allows rapid run-off and destroys the ability of the soil to absorb water.
- Forests are a habitat to wild animals. Destroying them means destroying homes for wild animals. This makes wild animals to wander in peoples homesteads and plantation.

5.

Approach

- Introduce your work by identifying choice of multi-purpose river development project
- Locate your choice of multi-purpose river development project.
- Explain the importance of the multi-purpose river development project.

Importance of Aswan High dam project

Aswan high dam is one of the oldest multi-purpose river projects in Africa that was constructed between 1960 and 1970. It is located on River Nile in Egypt. The Aswan high dam is the second-largest man-made lake after Kariba. The Aswan high dam was originally known as Egypt's Sadd-el-Aali project.

The Aswan high dam was constructed purposely to dam the Nile so as to generate great H.E.P, to control floods of River Nile so as to increase land for irrigation, to create natural water reservoir in form of man-made lake, to establish irrigation farming along the Nile valley, develop fishing through human made lake Nasser, minimise on the silting of upper Nile valley and improve on the inland water transport along the Nile valley

Generally Aswan High Dam has played a leading role in the economic development of Egypt as indicated below:

- The completion of Aswan High Dam led to generation of large quantity of H.E.P. This power has been used for industrialisation and rural electrification in Egypt. Today Egypt is the leading countries with high rate of rural electrification in Africa.
- There has been creation of man-made lake called lake Nasser. This stores about 106,000 million cubic metres of water used for the provision of fresh water for perennial irrigation along river Nile valley, hence increasing agricultural output.
- There was a complete control over flooding of River Nile. This resulted into additional cultivated land of about 690,000 hectares.
- Creation of Lake Nasser led to improvement in the inland water transport within Egypt. Lake Nasser today is a large fresh water reservoir, which is a sure source for domestic and industrial use in Egypt.
- There has been development of the fishing industry on Lake Nasser which is a livelihood to many people in Egypt.
- The completion of Aswan High Dam created a number of employment opportunities to the local people in Egypt, for example, those working in the Aswan High Dam itself.
- The government of Egypt is earning foreign income through various economic sectors which were established after the completion of Aswan High Dam, for example, H.E.P, agriculture, industries.
- The Aswan high dam has remained a major tourist attraction and role model to the development of multi-purpose river projects in various countries in Africa.
- The completion of Aswan High Dam has helped to protect the environment from destruction through promoting H.E.P generation, which saves Egypt from forest destruction in the search for fuel wood.
- It has led to development of towns like Komo, Ombo, Qena, Sohag and Aswan
- Minimised the silting of river Nile.

Importance of Tennessee Valley project

Tennessee Valley Project is located in eastern USA along

river Tennessee. River Tennessee is a tributary of river Mississippi. Tennessee Valley project is one of the oldest multi-purpose projects in the world. It was completed in the 1930s. Before the construction of the Tennessee Valley project, the states of Alabama, Kentucky, Georgia, Virginia, North Carolina and South Carolina experienced a number of environmental problems among such as: severe soil erosion, large-scale deforestation, flooding of River Tennessee, high rate of unemployment, various human diseases, famine, poor inland water transport due to many waterfalls and rapids.

Therefore, the Tennessee Valley Project was set up to: control Tennessee river floorings, create employment opportunities, fight poor farming methods, increase rate of industrial development, control environment degradation like severe soil erosion, increase government revenue earnings, carry out modern scientific research with aim of developing Tennessee valley, improve inland water transport.

With the completion of the Tennessee Valley project, a number of benefits are realised, these include:

- Great quantity of power is now being generated at various hydro power stations for example, at Kentucky.
- The generation of H.E.P has led to the development of industries which provide employment opportunities.
- The re-forestation and afforestation programme along the Tennessee valley. This has led to plenty of supply of wood fuel which was originally lacking.
- The agricultural sector today is highly modernised along the Tennessee valley. Farmers use modern methods of farming, which has solved the problem of shortage of food.
- The Tennessee River has been transformed into one of the international water transport routes in the whole world. This has led to rapid economic development of the region.
- Tennessee Valley project remains one of the leading tourist destination for thousands of visitors from various countries. This helps the government of USA earn foreign income that is used to improve on infrastructure.
- There has been complete eradication of human diseases which used to be rampant along the valley.

6.

Approach

- Introduce your work by identifying choice of country.
- Locate the country.
- Describe the types and status of transport in country chosen.
- Explain the importance of transport in the development of the country chosen.

The significance of the transport network to the development of Switzerland.

Switzerland is a European nation located in the central part of the continent. Its official name is Swiss Confederation and it is a landlocked country bordered by Italy in the south, Germany in the north, France in the west, Liechtenstein and Austria in the east. Switzerland is a small country with a total area of 41,277 sq. km. There is no coastline as Switzerland is a landlocked country.

Switzerland predominantly has temperate climate with some variation with altitude. Switzerland's topography is mainly mountainous, with central plateau region and some plains. The latitudinal and longitudinal extent of the country is 45° and 48°N and 5° and 11° E. Switzerland's largest city Zurich and the capital city Bern are few of the top most tourist destinations of the country. In fact, the country itself is a famous tourist destination of Europe. Swiss Alps, Jura Mountain, Lake Geneva are some of the natural tourist attractions of the country.

Switzerland is one of the leading developed countries whose rapid economic development and growth is largely dependent on the railway system. Switzerland is the pioneer country to electrify her railway transport as a means to facilitate her rapid economic development.

The contribution of transport network to the development of Switzerland.

- The railway system in Switzerland is important in the collection of raw materials for her industrial establishment.
- The railway system in Switzerland helps to distribute goods to final consumer, hence promoting trade and commerce.
- The railway system creates a lot of employment opportunities to the people of Switzerland like drivers.
- The railway system in Switzerland helped the country to overcome unfavourable terrain, especially in Swiss Alps.
- The railway system has helped the country overcome the lack of fuel resources like petroleum and coal.
- Because of successful railway and road network in Switzerland, the Swiss engineers are always hired for various international consultancies.
- The railway system in Switzerland helps in diversification of the economy through providing a livelihood in transport.

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- The railway system in Switzerland attracts tourists who bring in foreign income used to construct hospitals and schools.
- The transport system helps in skills development of the Swiss people through training more engineers.
- The railway system in Switzerland has facilitated the development of towns like Basel, Zurich, and Lausanne.
- The railway system has helped to promote international trade and co-operation. For example, 50% of goods to and from Italy are handled by rail line.

Significance of the transport network to Zambia's development:

The Republic of Zambia is a landlocked country in southern Africa, neighbouring the DR Congo to the north, Tanzania to the north-east, Malawi to the east, Mozambique, Zimbabwe, Botswana and Namibia to the south, and Angola to the west. The capital city is Lusaka, in the south-central part of Zambia. The population is concentrated around Lusaka in the south and the Copperbelt Province to the northwest, the core economic hubs of the country. Zambian transport includes railways, roads and bridges, aerodromes, airports, inland waterways and maritime. There are eight airports with paved runways, railways covering 2,922km, roadways, covering 67,671km and waterways covering 2,250km.

The main rail networks include Zambia and TAZARA, which were primarily constructed to serve the mining industry. The main airport is Lusaka Kenneth Kaunda International Airport. Other smaller airports include Livingstone and Mfuwe, Ndola along with secondary airfields, including Kasama, Kitwe, Chipata, Mongi, Mansa and Solwezi.

Zambia is the second-largest producer of copper in Africa and the industry relies heavily on the roads for shipping exports and mine inputs overseas through neighbouring countries. Some of the toll routes that form the backbone of Zambian national road network include Kipri Mposhi to Nakonde, Solwezi to Kazungula and Lusaka to Mchinji via Chipata. As the economy of Zambia accelerates, roads development projects have been launched. One such project is Link Zambia 8,000, also known as Accelerated National Roads Construction Programme, aimed at improving the current situation of roads in Zambia by rehabilitating and constructing the road network.

In Zambia, railways are the leading transportation mode for goods on the international and local routes. Total length of Zambian railway network is more than 2922 kilometers, of which, 900 kilometers are main lines while the rest is branch line railway. Zambia Railways is the main railway line owned by government whereas the TAZARA line is jointly owned by Tanzanian and Zambian governments. This railway line connects Tanzania with Zambia. This further connects Zambia to railway network of Mozambique and opens up various opportunities for the private sector in Malawi, Zambia and Mozambique.

The following is the contribution of transport network to the development of Zambia:

- Transportation of goods and services, hence promoting trade.
- Creation of employment opportunities.
- Promotion of international trade and co-operation.
- Development of towns like Lusaka, Kitwe, Ndola.
- Diversification of the economy of Zambia through creating more job opportunities in the transport sector.
- Development of other sectors like agriculture and mining.
- The transport network opens new opportunities for Zambia in Malawi, Zambia, Mozambique among others.
- The TANZARA railway system attracts tourists, which helps the government of Zambia to earn foreign income.

7. Approach

- Introduce your work by identifying choice country.
- Locate the country.
- Describe the status of tourism and tourist attractions in the country chosen.
- Explain the role of physical factors in development of tourism.
- Give other factors that support development of tourism.

Tourism development in Switzerland.

Switzerland is a European nation located at the central part of the continent. Its official name is Swiss Confederation and it is landlocked. It is bordered by Italy in the south, Germany in the north, France in the west, Liechtenstein and Austria in the east. Switzerland is a small country with a total area of 41,277 sq. km. There is no coastline as Switzerland is a landlocked country.

Switzerland predominantly has temperate climate with some variation with altitude. Switzerland's topography is mainly mountainous with central plateau region and some plains. The latitudinal and longitudinal extent of the country is 45° and 48°N and 5° and 11° E. Switzerland's largest city Zurich and the capital city Bern are a few of the top most tourist destinations of the country.

In fact, the country itself is a famous tourist destination of Europe. Swiss Alps, Jura Mountain, Coniferous forests, National parks like in Zerne, Charl, Scout with animals like brown bears, red deer, Lakes Geneva, Neuchatel, Lucerne, rivers like Rhine, Rhone, Inn, Aare are some of the natural tourist attractions of the country. The most visited Swiss tourist attractions are first, the Rhine Falls, second, the Berne Bear exhibit, and third, with over 1.8 million paid entries: Zoo Basel. Tourist centres in Switzerland include; St. Moritz, Davos, Lugano, Geneva, Zurich, Lucerne, Zermatt

The role of physical factors in the development of tourism in Switzerland:

- Strategic location of Switzerland in the centre of Europe, where there are many people with high incomes.
- Climate of Switzerland favours both winter and summer.
- Presence of different vegetation types like the coniferous, alpine. The tree species like fir, pines and spruce above 2,200 metres attract tourists.
- Presence of mountains ranges in Swiss Alps. These have attractive scenery such as pyramidal peaks, arêtes and cirques.
- Presence of many national parks in Zerne, Charl, Scout and Foun pass in Engadin valley is a major tourist attraction. These national parks have many animal species like Ibex, Red deer, brown bears.
- Presence of different drainage features, which attract tourists. Switzerland has over 1500 lakes — Geneva lake the largest, Constance and Neuchatel, among others.

Tourism development in Egypt:

The Arab Republic of Egypt is located in North Africa, bordering on the Mediterranean Sea to the north, Libya to the west, the Gaza Strip to the east and Sudan to the south. With an area of 1,001,450 square kilometers and a coastline of 2,450 kilometers, Egypt has a population of over 92 million people, making it the fifteenth most populous country in the world.

Egypt's strategic location at the edges of Africa, Europe and Asia has made it an important world power. Egypt is considered part of the Middle East as well as the Arab world, both culturally and politically.

Despite the drop in revenue as a consequence of political violence, tourism remains a significant contributor to Egypt's economy and the premier source of its foreign exchange earnings. The sector has huge potential, owing to the country's rich archaeological heritage, such as the pyramids and other major attractions, as well as attractive tourist destinations on the Red Sea. At its peak in 2010, the sector employed about 12% of Egypt's workforce, providing revenues of nearly \$12.5 billion, as well as contributing more than 11% of GDP and 14.4% of foreign currency revenues.

Major tourist destinations include the millennia-old monuments in the Nile Valley. Principal among them are the Pyramids and Great Sphinx at Giza, the Abu Simbel temples south of Aswan and the Karnak Temple Complex and Valley of the Kings near Luxor. Attractions in Cairo include the Cairo Museum and the Mosque of Muhammad Ali Pasha. The coast of the Sinai Peninsula has well-visited seaside resorts.

Sixty-one per cent of the visitors come from western and southern Europe. Tourists from other parts of the Middle East, especially from the Arab Gulf region, account for 19% of the total number, while Americans and Eastern Europeans each represent 6% of the total and Asian visitors make up 5%.

Major international hotels have in Egypt. These include the Four Seasons, Sheraton, Hilton and Marriott chains, among others. There are major resort complexes, especially on the Red Sea.

Role of physical factors in the development of tourism in Egypt:

- Presence of drainage features like the Red Sea in the east, the Mediterranean sea in the north, Lake Nasser and River Nile.
- Presence of river line features like River Nile delta, meanders, flood plains which all attract tourists.
- The existence of desert climate, especially in the west and east of Egypt, which attract many tourists from Europe and Asia.
- Presence of relief features like the Mount Sinai. This is a historical place for Christian religion, place where the children of Israel received the Ten Commandments.
- Presence of desert vegetation, which attract tourists.
- Presence of different Oasis areas in the desert of Egypt like Al Farafra in western desert, Al Kharga located west of the Nile valley, Bahariya in the north most, El Dakhla in the south most.
- Presence of protected areas (national parks) such as Ras Mohammed located in the very southern tip of the Sinai, St. Catherine.

8.

Approach

- Introduce your work by identifying choice of case study.

- Define environmental degradation and its forms.
- Identify some of the areas where environmental degradation is much more pronounced in your case study.
- Give the causes of environmental degradation, both natural and human.

Introduction for Africa:

Africa is located south of Europe and Asia. The continent is located in all four hemispheres, the equator runs almost directly through the middle of Africa, which means that it is both in the southern and northern hemispheres. Although most of this continent is located in the eastern hemisphere, a small portion of it is located in the western hemisphere. Environmental degradation is common in urban areas of Africa like Cape Town, Lagos, Mombasa, Dar el salaam, Cairo, Kampala among others.

Introduction for South America:

South America is the fourth-largest continent in size and the fifth-largest in population. It is located primarily in the southern hemisphere. It is bordered by the Atlantic Ocean to the east and the Pacific Ocean to the west. The geography of South America is dominated by the Andes Mountain Range and the Amazon River (second longest river in the world).

Major Biomes: rainforest, savanna, grassland. Environmental degradation is common in urban areas of South America. Major cities: Sao Paulo, Brazil Buenos Aires, Argentina Rio de Janeiro, Brazil Santiago, Chile Brasilia, Brazil Lima, Peru Bogota, Colombia Caracas, Venezuela Belo Horizonte, Brazil Medellin, Colombia Bordering Bodies of Water: Pacific Ocean, Atlantic Ocean, Caribbean Sea Major Rivers and Lakes: Amazon River, Parana River, Orinoco River, Tocantins River, Strait of Magellan, Lake Titicaca, Lake Maracaibo

General Causes of environmental degradation:

Environmental degradation is the deterioration of the environment through depletion of resources, such as air, water and soil; the destruction of ecosystems; habitat destruction; the extinction of wildlife and pollution. It is defined as erosion of the quality of natural environment caused, directly or indirectly, by human activities.

The primary cause of environmental degradation is human disturbance. The degree of the environmental impact varies with the cause, the habitat and the plants and animals that inhabit it.

Natural causes of environmental degradation:

- Occurrence of water weeds for example water hyacinth
- Natural pests like tsetse flies and mosquitoes which destroy livestock, human being, vegetation.
- Occurrence of diseases like HIV/AIDS, cholera, malaria which claim many people's lives.
- Occurrence of natural hazards like landslides, earthquakes, tsunamis, hurricanes, and wildfires can completely destroy local plant and animal communities to the point where they can no longer function. Volcanic eruptions (Nyamurangira volcano in south western Uganda erupted in 1996), landslides in Bududa eastern Uganda.
- Drought that is abnormal shortage of water leading death of people and livestock.
- Occurrence of floods which cause death of people, destroy human settlement. This is common in towns like Cape Town, Kampala.
- Destructive rains with a lot of hail stone and thunder, destroy vegetation.

Artificial causes of environmental degradation:

- Over stocking and over grazing destroying vegetation and consequently soil erosion. Common in pastoral communities like Fulani of western Africa, Karimajong of North Eastern Uganda.
- Practice of monoculture leading to reduced soil fertility. Common in areas where plantation agriculture takes place.
- Cultivation on slopes leading to landslides & soil erosion.
- Practice of deforestation for timber, fire wood collection, and search for land for agriculture leading to prolonged drought. This is connected to over growing population.
- Practice of bush burning in pastoral communities destroying soil humus, soil living organisms
- Pollution of the environment by man through release of industrial wastes and gases leading to air, water and land pollution.
- Mining and quarrying leading to land deformation. This is common in mining areas like Tororo, Kasee.
- Draining of wetlands for agriculture leading to loss of habitat for wildlife, drying water catchment areas therefore resulting into prolonged drought.
- Use of chemicals on farms, such as fertilisers, fungicides, herbicides and pesticides, which pollute soil and the atmosphere. For example, DDT causes