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KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR
FIRST YEAR, FIRST SEMESTER EXAMINATION
FOR THE BACHELOR OF SCIENCE IN COMPUTER SCIENCE
KCS 100 – FUNDAMENTALS OF COMPUTING

Date: 18TH April 2024
Time: 8:30AM – 10:30AM

INSTRUCTIONS

1. Attempt Question One (mandatory) and any other two questions.
2. Answer theoretical questions on the answer booklet provided.
3. Answers to practical questions should be saved appropriately in one folder on the desktop.

QUESTION ONE (30 MARKS)

Use the passage below to answer the questions that follow;

OFFICE AUTOMATION

Having been recently employed in a new organization at a managerial position, Miss Kanana would like to use skills gained from *Fundamentals of Computing* to improve organizational performance. She has decided to automate many of the tasks which initially required a lot of labor-force and long procedures to complete. She ensures that the organization has competent Information Technology (IT) staff to handle all software/hardware needs, data security and networking among other tasks. The IT staff are also involved in training the other employees for effectiveness and efficiency in computer use.

Required;

a) Describe any two benefits of automation that Miss Kanana seeks to achieve. (2 Marks)
b) Highlight any three security concerns that the IT staff could be training the other employees to overcome. (6 Marks)
c) Describe three output devices that may be used in the organization. (6 Marks)
d) The organization is also using general purpose application softwares to perform common tasks. Identify how the following applications may be used to improve organizational performance.
   i) Microsoft Word (2 Marks)
   ii) Microsoft Excel (2 Marks)
e) During a training session, the employees were encouraged to take advantage of the improved computing technology in the current generation. The trainer made a comparison between the current generation and first generation computers. Identity three characteristics of the first generation that the trainer could have highlighted. (6 Marks)
f) Ultimately, automation helped to improve organizational performance due to the characteristics that distinguish computers from other devices. Highlight any two three characteristics (6 Marks)

QUESTION TWO (20 MARKS)

a) Examine two emerging trends in computing. (8 Marks)
b) Highlight four measures that could be used to protect computers from malware such as viruses and worms. (8 Marks)

c) With the aid of suitable examples, analyses three categories of storage devices. (6 Marks)

QUESTION THREE (20 MARKS)
Use Microsoft Word to answer the following questions

LOCAL AREA NETWORK (LAN)

A local area network (LAN) is a group of computers and peripheral devices that share a common communications line or wireless link to a server within a distinct geographic area. A local area network may serve as few as two or three users in a home office or thousands of users in a corporation's central office. Homeowners and information technology (IT) administrators set up LANs so that network nodes can communicate and share resources such as printers or network storage.

A LAN enables users to connect to internal servers, websites and other LANs that belong to the same wide area network (WAN). Ethernet and Wi-Fi are the two primary ways to enable LAN connections. Ethernet is an Institute of Electrical and Electronics Engineers (IEEE) specification that enables computers to communicate with each other. Wi-Fi uses radio waves in the 2.4 gigahertz and 5 GHz spectrum to connect computers to the LAN.

Source: https://www.techtarget.com/

Required;
a) Create a folder on the desktop with your admission number as the folder name. (2 Marks)
b) Produce a document as shown above in Microsoft Word and save it as, LAN. (6 Marks)
c) The title should be center aligned, of font Times New Roman, font size 23 and font colour red. (4 Marks)
d) Copy and paste the passage to appear four times in the document. (2 Marks)
e) Apply double spacing, 2.0, to the body of the passage. (4 Marks)
f) Insert your admission number to appear as the page footer. (2 Marks)

QUESTION FOUR (20 MARKS)
Using Microsoft Word, write a document about the three arms of the government of Kenya.
Additional Information
Page one should have the title, "Government of Kenya"
Page two, three and four should discuss the three arms each on its own page.
a) Save the file as, Government, in your folder. (6 Marks)
b) Insert a roman page number on page one and Arabic page numbers on page 2,3 and 4 at the top margin. (6 Marks)
c) Prepare an automatic table of contents and insert it in page one. (6 Marks)
d) Design the document to have a watermark of your choice. (2 Marks)

QUESTION FIVE (20 MARKS)

Use Microsoft Excel to answer the following questions

	A	B	C	D
1		**NAIROBI TECH LTD**		
2	EMPLOYEE CODE	DEPARTMENT	DURATION OF SERVICE	REWARD
3	K12	ACCOUNTS	20	
4	K13	FINANCE	15	
5	K14	HUMAN RESOURC	11	
6	K15	MARKETING	4	
7				
8				
9				
10	CRITERIA			
11	15 years and above	Holiday Trip		
12	10 years and above	Refrigerator		
13	Less than 10 years	TV set		
14				

a) Enter the data in a spreadsheet as shown above and save the file as, Nairobi. (6 Marks)
b) Compute the average duration of service using a formula. (2 Marks)
c) Calculate the longest duration of service using a function. (2 Marks)
d) Using the criterial given, use the IF Function to return the appropriate reMarks based of the duration of service for each employee. (6 Marks)
e) Create a bar graph that plots the employee code against the duration of service. (4 Marks)