(86/100)

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Course Code: CLI000	Course Name: Introduction to Information and Communication Technology
Instructor Name: Mr. Zain ul Abideen Kamboh	
Student Roll No: 21K-4503	Section: E

Instructions:

- Return the question paper. Don't write anything on question paper, except your Roll # & Section#.
- Read each question completely before answering it. There are 4 question and 4 pages.
- In case of any ambiguity, you may make assumptions. But your assumptions should not contradict any statement in the question paper.
- All the answers must be solved according to the sequence given in the question paper.
- This paper is subjective. Write the answers only on answer sheet.

Time: 120 minutes.

Max Marks: 100

QUESTION # 01 (Memory Mapping)

[Marks: 10 / Time: 10 mins]

- Map the variables in Ram and draw your solution.

```
int main(){
bool  = true;
char ch = 'D';
int x, y, z, hex = 0xFAFA;
short bin = 0b1010011010011110;
float a=41, b=197;
x=((19%4)*3);
y=x-13;
x = (z + x);
y = x*y;
z = -y + ++x;
a = ((a*b)/y);
}
```

(6)

Instructions:

- Assume initial address of your Ram starts from 0FFF and all your addresses bytes are consecutive.
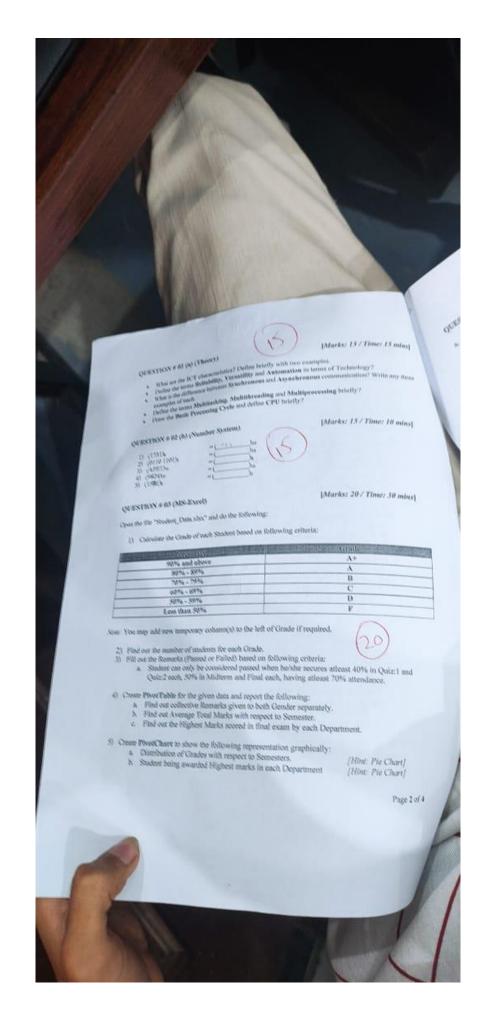- Assume bool = 1 byte, char = 1 byte, int = 2 bytes, short = 2 bytes, float = 4 bytes.
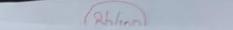- Write only final results in your memory.
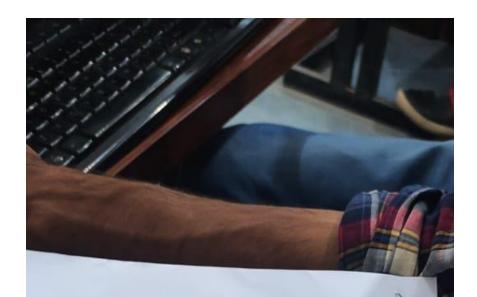- Map variables in execution order.

QUESTION # 01 (a) (Theory)

- What are the ICT characteristics? Define briefly with two examples.
- Define the terms Reliability, Versatility and Automation in terms of Technology?
- Define the terms Reliability, Versatility and Asynchronous communication? Write any three examples of each.
- What is the difference between Synchronous and Asynchronous communication? Write any three examples of each.
- Define the terms Multitasking, Multithreading and Multiprocessing briefly?
- Draw the Basic Processing Cycle and define CPU briefly?

QUESTION # 02 (b) (Number System)

1) (1753)₈
2) (6010 1101)₂
3) (A9F2)₁₆
4) (982)₁₀
5) (1980)₁₀

QUESTION # 03 (MS-Excel)

Open the file "Student_Data.xlsx" and do the following:

1) Calculate the Grade of each Student based on following criteria:

Percentage	Grade
90% and above	A+
80% - 89%	A
70% - 79%	B
60% - 69%	C
50% - 59%	D
Less than 50%	F

Note: You may add new temporary column(s) to the left of Grade if required.

2) Find out the number of students for each Grade.
3) Fill out the Remarks (Passed or Failed) based on following criteria:
   a. Student can only be considered passed when he/she secures atleast 40% in Quiz:1 and Quiz:2 each, 50% in Midterm and Final each, having atleast 70% attendance.

4) Create PivotTable for the given data and report the following:
   a. Find out collective Remarks given to both Gender separately.
   b. Find out Average Total Marks with respect to Semester.
   c. Find out the Highest Marks scored in final exam by each Department.

5) Create PivotChart to show the following representation graphically:
   a. Distribution of Grades with respect to Semesters.   [Hint: Pie Chart]
   b. Student being awarded Highest marks in each Department   [Hint: Pie Chart]

QUESTION # 05 (MS-Word)   (Marks: 8+12 = 20 / Time: 30 mins)

a.   Using MS-Word, Choose an appropriate Smartlist for the following Categories of Vehicles:

Types of Vehicles
1. Off-roaders
   1.1 Sport utility vehicle
2. Commercial vehicles
   2.1 Van
3. Economy cars
   3.1 Micro car
   3.2 Hatchbacks
      3.2.1 Ultra-compact car
      3.2.2 City car
      3.2.3 Super-mini/subcompact car
   3.3 Family car
      3.3.1 Small family car/compact car
      3.3.2 Large family / mid-size
4. Saloons / sedans
   4.1 Large family / mid-size
   4.2 Full-size / large
   4.3 Crossover SUV
   4.4 Minivans / MPVs
5. Luxury vehicles
   5.1 Compact executive
   5.2 Executive/mid-luxury
   5.3 Full-size luxury / Grand saloon
   5.4 Estate cars / station wagons
6. Sports cars
   6.1 Hot hatch
   6.2 Sports car
   6.3 Super car
   6.4 Muscle car

b.   Create table as below and shading the first row. Insert an Octagon and write your name in the center.

Day /	Period I	Period II	Period IV	Period V
Sunday	Math	Science	English	Computer
Monday	Science	Computer	Math	English
Tuesday	English	Math	Computer	Science
Wednesday	Computer	Science	Math	English
Friday	Math	Science	English	Computer

- Create margin at the top at bottom 1.1 inch and right at left 1.5 inch
- Create landscape orientation & A4 paper size
- Insert Period III column after Period II
- Insert Thursday row below Wednesday row

- Insert page number center align and Arial font
- Insert watermark "Hello world"
- Table font "Times new roman" and 13 size

QUESTION # 04 (MS-Powerpoint)   [Marks: 20/ Time: 25 mins]

Assume that you can work for ABC Corp. the boss is impressed with you work and wants you to help him in preparing company presentation. This presentation includes six slides on the current organization structure and sales by the sales representatives in last three years.

- Organization Structure:
  Yousuf Jusani - President
  Muhammad Huzaifa – Vice President
  Hamza Ahmed – Brand Ambassdor
  Kariz Kamal – District Manager
  Bilal Un Nabi Khan – Area Manager
  Asim Iqbal – Head of IT

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- Sales by the Representatives

Name	2018	2019	2020	Variance
Ali Khan	£20000	£10000	£40000	£20000
Mir Ibrahim	£56000	£45000	£65000	£30000
Fazal Shah	£30000	£12000	£20000	£15000
Kashif Khan	£15000	£20000	£23000	£15000

a) First Slide contains the tiltle of the presentation.
b) Second Slide contains the content of presentation it should be in smartArt.
c) Add Signature in each and every slide.
d) Third Slide contains the hierarchy structure of the organization.
e) Fourth slide show sales by representatives which should be in table. The table should be in theme.
f) Fifth slide show the performance chart based on previous table.
g) Use suitable theme, transitions and apply animation on title slide.
h) Add note to all slides except the title slide.

Follow these instructions otherwise your submission will NOT be accepted:
1) Create a folder & name it like: "K21-XXXX"
2) Put all your solution files in that folder
3) Compress your folder finally either in .RAR or .ZIP format
4) Submit ".rar/.zip" folder in \\netstorage\Exam Submission\Introduction to ICT 2021\Section-J

Good Luck!