

PALESTINE POLYTECHNIC UNIVERSITY
COLLEGE OF INFORMATION TECHNOLOGY AND COMPUTER ENGINEERING
COMPUTER AND PROGRAMMING PRINCIPLES 5055
FIRST EXAM -- FALL 2021

Student Name: Sarah Abu Irmeleh.

الاسم (عربي): سارة أبو إرملة

Date: 02/11/2021

Student Number: 211027

Time: 45 Minutes

Lecture Time: (12:30 - 1:45) اثنين اربعاء

ضع ✓ بجانب المدرس

<input type="checkbox"/> مازن زلوم	<input type="checkbox"/> سوزان سلطان	<input type="checkbox"/> عليان أبو غربية	<input checked="" type="checkbox"/> أليانا التميمي
<input type="checkbox"/> ضياء أبو زينة	<input type="checkbox"/> منال التميمي	<input type="checkbox"/> ازدهار جوابرة	<input type="checkbox"/> محمد أبو طه
<input type="checkbox"/> موسى ارفاعية	<input type="checkbox"/> يوسف صلاح	<input type="checkbox"/> محمد جعبري	<input type="checkbox"/> أحمد قديمات

Question	Q1(13)	Q2(14)	Q3(13)	Total Grade / 40
Mark	13	14	13	40

Q1(13Marks): Choose the correct answer for the following multiple choices, and fill in the table below

1	2	3	4	5	6	7	8	9	10	11	12	13
B	A	B	C	B	A	A	0	B	B	B	B	D

1	Which of the followings is a permanent memory type? <i>non-volatile</i>	A. RAM B. ROM C. Cache D. Registers
2	Data stored _____ on HDD storage media.	A. Magnetically B. Optically C. Light pulses D. Flash technology
3	Converting electricity from AC to DC is the job of:	A. System clock B. Power supply C. Motherboard D. Modem
4	One of the following is not a network topology:	A. Bus network B. Star network C. Coaxial network D. Ring network

5	For ADSL connections, the Upstream is usually:	<ul style="list-style-type: none"> A. 8 times the downstream <input checked="" type="checkbox"/> B. 1/8 of the downstream C. Same as downstream D. Double the downstream
6	The part of CPU that is responsible for executing arithmetic and logical operations is:	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> A. ALU B. CU C. Registers D. Cache
7	One of the following printers uses spraying to print information:	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> A. Inkjet Printer B. Laser printer C. Thermal Printer D. Dot Matrix printer
8	Magnetic stripe reader is an:	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> A. Input Device B. Output Device C. Storage device D. Network Device
9	Small programs that communicate with peripheral devices and configure them:	<ul style="list-style-type: none"> A. Desktop software <input checked="" type="checkbox"/> B. Device driver C. Disk defragmenter D. File compressor
10	The ratio of the width of a display screen relative to its height is called:	<ul style="list-style-type: none"> A. Resolution Ratio <input checked="" type="checkbox"/> B. Aspect Ratio C. PPI Ratio D. Both B and C options
11	A malware that secretly collects information about the user and sends it to outside sources	<ul style="list-style-type: none"> A. Virus <input checked="" type="checkbox"/> B. Spyware C. Worm D. Trojan Horse
12	Firewall provides us with security through:	<ul style="list-style-type: none"> A. Encrypting the data traffic <input checked="" type="checkbox"/> B. Checking network traffic and allowing only the authorized ones to pass C. Removing Viruses from your computer D. Detecting Spyware in your computer
13	The computer performance is affected by many factors like:	<ul style="list-style-type: none"> A. RAM capacity B. Processor speed C. Cache size <input checked="" type="checkbox"/> D. All of the choices

B
K 10
M 10
G 10
T

14

Q2) (14 Marks) State whether each of the following statement are True or False:

No.	Statement	True/False
1	Twisted pairs cables have the fastest transmission speed. <i>wired optix. cables</i>	F
2	Mainframe is the most powerful computer in the world. <i>super computer</i>	F
3	The processor's clock speed is usually measured in GB. Hertz. <i>GHz</i>	F
4	2^{30} Byte is called Terabyte. <i>2¹⁰ / 2¹⁰ / 2¹⁰ / 2¹⁰</i>	F
5	CLI User interface is easier to use than Graphical User Interface. <i>GUI</i>	F
6	The way by which network devices are physically connected together is called a topology.	T
7	An SSD is organized into tracks and sectors. <i>HDD</i>	F
8	A Trojan horse malware uses social engineering to replicate itself on other computers. <i>virus / worm / Trojan</i>	F
9	A repeater is used to connect wireless devices with the wired network. <i>Access point</i>	F
10	Magnetic tape is very slow sequential access storage media.	T
11	When a computer is started, the operating system loads onto the computer's storage from memory. <i>RAM - ROM</i>	F
12	It is a good practice to avoid putting too many personal details on your website or your social media account.	T
13	A client is a computer used to host programs and data for a network and responds to server requests.	F
14	A web application runs inside a web browser.	T

13

Q3)(13 Marks) Answer the followings:

a) (8 Marks) Fill the spaces with the most suitable terms.

1. The set of rules and procedures that govern correct communication between different parties is called Protocol.
2. When data is sent over a network connection, the data is divided into smaller units called pockets.
3. The locations on the motherboard into which adapter cards can be inserted to connect those cards to the motherboard are called expansion ports (slots).
4. A small data file that saved on your hard disk when visiting a website and tracks your browsing activities is called a Cookies.

b) (5 Marks) What is the needed time (in seconds) to download a file with size 2 GB, if you have an Internet connection speed of 8 Mbps?

$$\cancel{2 \text{ GB}} = \cancel{2 \times 10^3 \times 10^{10} \times 10^{10}}$$

$$* \quad 2 \text{ GB} = 2 \times 2^{33} = 2^{34} \text{ bit.}$$

$$* \quad 8 \text{ Mb} = 2^3 \times 2^{20} = 2^{23} \text{ bit.}$$

$$\text{time} = \frac{\text{size}}{\text{speed}} = \frac{2^{34}}{2^{23}} = \boxed{2^{\text{''}} \text{ s}}$$

b
G
+
K
M
B