جامعـــــة الملك سعود
المجتمع بالرياض كلية
Riyadh community college
قسم علوم الحاسب
Computer science department

KING SAUD UNIVERSITY

ورقة الاختبار
Examination sheet

أ- معلومات **A : Information**

Student Name		اسم الطالب
Student Number		الرقم الجامعي للطالب
Semester	First	الفصل الدراسي
Academic year	1432/1433	السنة الدراسية
Course Title	Computer Networks	اسم المقرر
Course Symbol, No	COMP241	رقم ورمز المقرر
Section number	1131	رقم الشعبة
Instructor Name	Dr. Mohammed Amoon	اسم مدرس المقرر
Exam date	Tuesday 27/11/1432	تاريخ الاختبار
Exam time	8:00 AM	موعد الاختبار
Time allowed	one hour	الزمن المتاح للاختبار
Total Marks	10 Marks	درجة الاختبار الكلية

ب- إرشادات **B -Guidelines**

-The exam consist of 6 questions and the total mark is (10). **- Each question has its own mark beside it.** **-The answer must be written clearly and writ the question number relevant to the answer.** **- Student must not talk or cheat during the exam or He will be subject to penalty**	**- الامتحان يتكون من ستة أسئلة ومجموع العلامات (10).** **- العلامة مكتوبة إزاء كل سؤال.** **- يجب كتابة الإجابة بوضوح وتحديد رقم السؤال المتعلق بالإجابة.** **- الالتفات/ أو الكلام / و الغش خلال الامتحان تحت طائلة العقاب**

جـ - ملاحظات الطالب حول الأسئلة (إذا وجد) **C- student Comments about the Questions (If any)**

1. **2.**	**.1** **.2**

الدرجات **Marks**

السؤال	الأول	الثاني	الثالث	الرابع	الخامس	السادس			المجموع
الدرجة									

Learning Outcomes Mapping
Computer Networks (COMP241)
First exam
Term I (1432/1433)

No.	Description	Questions					
		Q1	Q2	Q3	Q4	Q5	Q6
LO 1	The principles of computer networks.	x	x			x	
LO 2	Network protocols.	x	x				
LO 3	The OSI , TCP models.		x		x		x
LO 4	The network topologies.	x			x		x
LO 5	The main features of LAN and WAN.	x					
LO 6	Ethernet technologies.					x	
LO 7	Ethernet switching.						
LO 8	Networking media and cabling.	x	x				
LO 9	The routing principles.						
LO 10	IP addressing, Sub netting.	x		x			
LO 11	Network Administration.						
LO 12	Network troubleshooting.		x				
LO 13	Network configuration.						
LO 14	Install a small LAN.						
LO 15	Test cables of a computer network.						

King Saud University
RIYADH COMMUNITY COLLEGE
Dept. of Computer Science

COMP 241: **Computer Networks**
1st major exam (1432/1433) Term 1
Time: 60 Mins

Attempt to solve the following questions:

[1] Choose the right answer: **[2 marks]**

1. **…….. is used to download files and programs from the Internet.**

a) HTTP **b) SMTP** **c) FTP** **d) TCP/IP**

2. **1 GB equals …….**

a) 1024 KB **b) 1024 MB** **c) 1024*1024 MB** **d) 1024 TB**

3. **A …….. topology connects all cables to a central point of concentration.**

a) bus **b) ring** **c) star** **d) mesh**

4. **Currently, addresses assigned to computers on the Internet are ……...-bit binary numbers.**

a) 16 **b) 24** **c) 32** **d) 64**

5. **A …… is designed to operate within a limited geographic area.**

a) WAN **b) LAN** **c) MAN** **d) SAN**

6. **Multimode is only capable of carrying up to ……. Meters.**

a) 500 **b)1000** **c)2000** **d) 3000**

7. **A ……., is a device that provides the computer with connectivity to a telephone line.**

a) Router **b) Hub** **c) Modem** **d) NIC**

8. **A …… is software that interprets hypertext markup language (HTML).**

a) web browser **b) ping** **c) TCP/IP** **d) Windows**

[2] State whether the following is true or false: **[2 marks]**

1. **Ping command is a utility used to verify Internet connectivity.** **( )**
2. **10BaseT uses coaxial cables.** **( )**
3. **Single-mode fiber can carry LAN data up to 1000 meters.** **( )**
4. **The MAC address is 32 bits.** **( )**
5. **The complete IP address is represented as eight groups of decimal digits separated by dots.** **( )**
6. **A standard modem provides high speed connectivity.** **( )**
7. **The OSI Model, divided the network into sex layers.** **( )**
8. **A network interface card (NIC) is also called LAN adapter.** **( )**

Answer three questions from the following four questions:

[3] Given the following information, determine the network and host portion of the IP address:

(a) IP address: 192.32.224.8 **[1 mark]**

Subnet Mask: 255.255.255.0

(b) IP address: 162.124.20.5 **[1 mark]**

Subnet Mask: 255.255.0.0

[4](a) How long would it take to transfer a 100 MB file over a T_1 line?

Note: T_1 line bandwidth = 1.544Kbps. **[1 mark]**

(b) Assume you want to install a 800-meter LAN with 10Base5 Ethernet technology. How can you do that? **[1 mark]**

[5] (a) Draw the 7-layer architecture of the OSI model. **[1 mark]**

(b) State some of the commonly used Network physical topologies. **[1 mark]**

[6] (a) Draw the 4-layer architecture of the TCP/IP model. **[1 mark]**

(b) State the two network logical topologies. **[1 mark]**