



QUAID-E-AWAM UNIVERSITY OF ENGINEERING, SCIENCE & TECHNOLOGY, NAWABSHAH

FIRST SEMESTER FIRST YEAR (1st YEAR) REGULAR EXAMINATION 2021-22

SUBJECT: INTRODUCTION TO COMPUTERS

Dated: 27.08.2021

Maximum Marks: 30

Time Allowed: 02 Hours

NOTE: ATTEMPT ALL THREE (03) QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

Q. No.			CLO	Priority Level	Marks
Q. 01	(a)	What is processor? Draw the diagram of its internal components, which socket is used for the installation of PGA processor	CLO3	1	05
	(b)	Explain Memory and its types. Enlist two examples of each type	CLO1	2	05
Q. 02	(a)	Explain the boot process of computer with steps involved	CLO1	2	05
	(b)	Draw a chart interpreting the types of Software. Enlist examples of each type.	CLO2	2	05
Q. 03	(a)	What expansion buses are available on motherboard, enlist their features	CLO2	2	05
	(b)	Enlist types of Malware. What are famous proprietary & open source operating systems mostly used in Pakistan.	CLO3	1	05

--- The End ---



SUBJECT: FUNCTIONAL ENGLISH

Dated: 30.08.2021

Maximum Marks: 60

Time Allowed: 3 Hours

NOTE: ATTEMPT ALL QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

Q. #

C

Q. 01

Write a comprehensive essay (200-250 words) on any one of the following:

- Co-education, Merits and Demerits
- Role of Education in Character Building of a Nation
- Gender equality in Pakistan

Q. 02

Elaborate the importance of presentation. What are the issues/problems that we usually face while presenting a presentation and how to deal with them?

Q. 03

(a) Identify all the words in the following sentences. (2 Marks for each)

- The cute puppy rested on the couch, and it was very energetic in the afternoon.
- In the summer, the happy children play enthusiastically before they eat their dinner.
- The black cat ran quickly down the street, but the dog found it immediately.

(b) Put a T for true and F for false.

- _____ joyfully and slowly are adverbs that tell HOW something was done.
- _____ Adverbs are the name of a person or thing.
- _____ yesterday and later are adverbs that tell WHEN.
- _____ Adverbs should always be capitalized.
- _____ Away and upstairs are adverbs that tell WHERE
- _____ sadly, always, tomorrow, and very are adverbs.

Q. 04

Fill the correct form of the verb in below sentences - All Tenses

- I _____ a great film yesterday. (see)
- _____ a new car? (you ever buy)
- The earth _____ here for billions of years (be).
- We _____ cricket for the last few hours (play).
- They _____ (go) home after they _____ (finish) their homework.
- I'm afraid I'm not hungry. I _____. (already eat)
- After I _____ (hear) the news, I _____ (hurry) to see him.
- How many times _____ the cat today? (Junaid feed)
- _____ breakfast yet? - Yes I had it together with Ali at 7. (you have)
- The kids _____ on my nerves. They _____ too much noise (I get, 2 make).
- He told me he _____ (catch) a young lion and _____ (shoot) two others.
- He always _____ to the supermarket alone, but today he _____ his son with him. (I go, 2 take)



ISLAMIC STUDIES

- Q. 01 Describe the meaning of Revelation (Wahi), its types and write the compilation of Holy Quran, also describe Uloom-ul-Quran in detail.
- Q. 02 Describe the importance of Tauheed and write all its types.
- Q. 03 Describe the meaning of Hadith and write all its types.

ETHICS (FOR NON-MUSLIMS)

- Q. 01 Write down the history of Hinduism and write its rituals and holy days.
- Q. 02 Write in detail the history of Jesus Christ and write the teachings of Christianity.
- Q. 03 Write short notes on the following topics:
1. Ethical values in Islam
 2. Ten Commandments of Prophet Moses
 3. Cast System in Hinduism



SUBJECT: APPLIED CALCULUS

Dated: 23.08.2021

Maximum Marks: 60

Time Allowed: 3 Hours

NOTE: ATTEMPT ALL QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS

Q. No.	QUESTIONS	CLO	Taxon Level	PLD	Marks
Q.1 (a)	Prove that $\lim_{x \rightarrow 0} \frac{ x }{x}$ does not exist	CLO-2	C-3	4	[04]
Q.1 (b)	Show that (i) $\lim_{x \rightarrow 0} \left(\frac{\sin x}{x} \right) = 1$ (ii) $\lim_{x \rightarrow 0} \left(\frac{1 - \cos x}{x} \right) = 0$	CLO-2	C-3	4	[05]
Q.2	If f and g are continuous functions at a and c is a constant, then prove that following are also continuous at a (i) $f \pm g$ (ii) $f g$ (iii) $\frac{f}{g}, g \neq 0$ (iv) $c f$	CLO-2	C-3	4	[12]
Q.3	The position of particle is given by the equation $s = f(t) = t^3 - 6t^2 + 9t$ Where t is measured in seconds and s is in meters (i) Find velocity at time t . (ii) What is the velocity after 2 seconds? (iii) When is the particle at rest? (iv) When is the particle moving forward? (v) Draw the diagram to represent the motion of particle (vi) Find the total distance traveled by the particle during the first five seconds.	CLO-3	C-2	4	[12]
Q.4(a)	If r is a rational function then show that $\lim_{x \rightarrow a} r(x) = r(a)$	CLO-2	C-3	4	[6]
Q.4(b)	Differentiate following with respect to x (i) $\frac{\tan x + 1}{\tan x - 1}$ (ii) $\sqrt{x} \log \sqrt{x}, x > 0$	CLO-3	C-3	4	[6]
Q.5(a)	Evaluate the following limits by Applying the L'Hospital's Rule (i) $\lim_{x \rightarrow \infty} \frac{x^2 + x^4 + x^6 + x^8 + 1}{2x^3 + x^5 + x^7 + x^9 + 1}$ (ii) $\lim_{x \rightarrow -2} \frac{x+2}{\ln(x+3)}$	CLO-3	C-3	4	[6]
Q.5(b)	Evaluate the following (i) $\int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \sin(x) \cos(x) dx$ (ii) $\int \frac{\sin \sqrt{x}}{\sqrt{x}} dx, x > 0$	CLO-3	C-3	4	[6]

The End

Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah

Department of Electronic Engineering

Subject: Introduction to Computers

Batch: 2020 ES

Total Marks: 10

Term: 1st

Subject Teacher: Engr. M Aamir Bhutto

Year: 1st

Time Allowed 45 minutes

MID TERM EXAMINATION (Dated 07.03.2021)

				CLO	Level
QNo.1	(a)	Define the terms hardware & software. Explain 'Hardware Requirement' for a software	(02)	C1	1
	(b)	What do you mean by the speed of computer? Why it is calculated in Hz?	(02)	C4	4
	(c)	Why surge protector is recommended for computers	(01)	C4	4
QNo.2	(a)	Define the terms 'Data' & 'Information' with suitable examples	(01)	C1	1
	(b)	Explain generations of computer with mentioning the 'processing element' of each.	(02)	C2	2
	(c)	Which technology enables the computer to increased its functionality & decreased its size?	(02)	C3	3
QNo.3	(a)	Discuss some advantages of computer with suitable examples	(03)	C2	2
	(b)	Describe some application of computers in modern world	(02)	C1	1
		THE END			

SUBJECT: APPLIED PHYSICS**Dated: 04.03.2021****Maximum Marks: 20****Time Allowed: 1 Hour****NOTE: ATTEMPT ANY TWO (02) QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.**

Q. No		CLO	Taxonomy Level
01 (a)	Explain static electricity and law of conservation of charge in detail.	1	C2
01 (b)	Differentiate between conductors and insulators.	1	C4
02 (a)	Discuss Coulomb's Law.	1	C2
02 (b)	Define electric field. Discuss the properties of electric field in detail.	1	C1
02 (c)	When a 12.0 V battery runs a single 30.0 W headlight. How many electrons pass through it each second?	1	C3
03	Explain capacitors and dielectric. Also discuss parallel plate capacitor in detail.	1	C2

**SUBJECT: APPLIED PHYSICS****Date: 03.08.2021****Maximum Marks: 60****Time Allowed: 3 Hours****NOTE: ATTEMPT ALL QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.**

Q.No		CLO	Taxonomy Level	Marks
01(a)	Calculate the strength and direction of the electric field E due to a point charge of 2.00 nC at a distance of 5.00 mm from the charge. Also calculate the force exerted by this electric field on a point charge of $-0.25 \mu\text{C}$.	2	C3	06
01(b)	When a 12.0 V battery runs a single 30.0 W headlight, Calculate the number of electrons passing through it each second?	2	C3	06
02(a)	A heart defibrillator delivers $4.00 \times 10^2 \text{ J}$ of energy by discharging a capacitor initially at $1.00 \times 10^4 \text{ V}$. Determine its capacitance?	2	C3	04
02(b)	Suppose a rubbed glass rod with silk, placing a 20-nC positive charge on it. Calculate the force on the rod due to the Earth's magnetic field, if you throw it with a horizontal velocity of 10 m/s due west in a place where the Earth's field is due north parallel to the ground.	2	C3	04
02(c)	Employ the quantum model on the sodium atom with complete details.	2	C3	04
03(a)	Classify the materials with respect to its electrical properties. Support your arguments with the help of band gaps.	2	C3	06
03(b)	Explain the idea of Electron and Hole currents with the help of suitable diagrams.	1	C2	06
04(a)	Explain laws of reflection and refraction.	1	C2	06
04(b)	Discuss the ray aspect of light in detail.	1	C2	06
05(a)	Provide the complete process details of a simple heat engine.	2	C3	06
05(b)	Discuss all the simple thermodynamic processes.	1	C2	06



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MID-SEMESTER EXAMINATION OF FIRST SEMESTER - FIRST YEAR (1ST SEMESTER) 2021, 20 BATCH, B.E (ES/ESE)

SUBJECT: FUNCTIONAL ENGLISH

Dated: 05.03.2021

Maximum Marks: 20

Time Allowed: 1 Hour.

NOTE: ATTEMPT ANY TWO (02) QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

- Q. 01** Write a letter to your father requesting him to increase your pocket money. **10**
Word limit: 100-150
- Q. 02** Write an application to the chairman of your department requesting him to grant you fee scholarship. **10**
- Q. 03** (a) Explain the significance of punctuation in writing. Describe any three punctuation marks with relevant examples. **05**
1) Comma
2) Capitalization
3) Apostrophe
4) Quotation marks
- (b) Characterize the diverse function of articles. When to use articles and when to use no article in English? **05**

The End