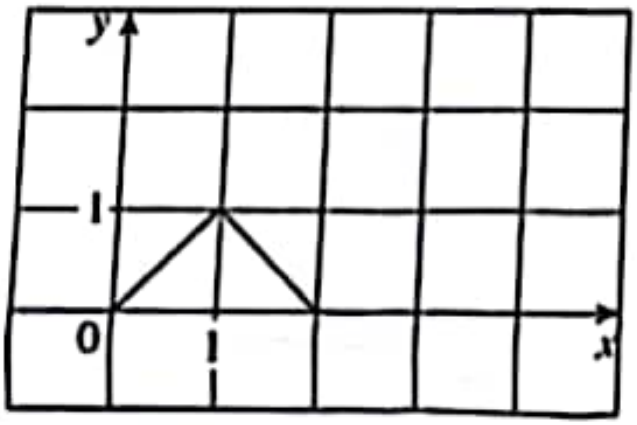
QUAID-E-AWAM UNIVERSITY OF ENGINEERING, SCIENCE & TECHNOLOGY, NAWABSHAH

MID-SEMESTER EXAMINATION OF SECOND SEMESTER – FIRST YEAR (2ND SEMESTER) 20-BATCH, B.E (EE)

SUBJECT: APPLIED CALCULUS

Dated: 13.10.2021 **Maximum Marks: 20** **Time Allowed: 1 Hour**

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

Q. No.	QUESTIONS	CLO	Taxon Level	PLO	Marks
Q.1 (a)	What is a Function and its graph? Define Domain and Range of Function with the help of graphical representation of Function.	CLO-1	C-2	PLO_2	[5]
Q.1 (b)	Find the domain of each function. (i) $f(x) = \frac{5x+4}{x^2+3x+2}$ (ii) $f(t) = \sqrt{t} + \sqrt[3]{t}$	CLO-1	C-2	PLO_2	[5]
Q.2 (a)	Define following with at least one example i. Bijective function ii. One-One function iii. Onto function iv. Absolute value function v. Piece wise function	CLO-1	C-2	PLO_2	[5]
Q.2 (b)	When a function f is even or odd define this briefly? Determine whether each of the following functions is even, odd, or neither even nor odd. (i) $f(x) = x^5 + x$ (ii) $g(x) = 1 - x^4$ (iii) $h(x) = x - x^2$	CLO-1	C-2	PLO_2	[5]
Q.3 (a)	Evaluate the difference quotient for the given function. Simplify your answer. (i) $f(x) = 2x^2 - 5x + 1$, $\frac{f(1+h)-f(1)}{h}, h \neq 0$. (ii) $g(x) = \frac{x+3}{x+1}$, $\frac{f(x)-f(1)}{x-1}$, $x \neq 1$	CLO-1	C-2	PLO_2	[5]
Q.3 (b)	Find a formula for the function f graphed in Figure given below: 	CLO-1	C-2	PLO_2	[5]

The End

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

MID-SEMESTER EXAMINATION OF SECOND SEMESTER – FIRST YEAR (2ND SEMESTER), 20-BATCH, B.E

SUBJECT: ENVIRONMENTAL PHYSICS

Dated: 12.10.2021 Maximum Marks: 20 Time Allowed: 1

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

Q. No.	Questions	CLO	PLO
Q. 01	What do you know about Environmental Physics? Why physics is important to the Environment and how are environment and physics related? Briefly discuss what skills do you need to be an environmental physicist?	CLO-1	PLO-1
Q. 02	What is meant by heat transfer and describe its different modes. What is the importance of heat transfer and how does it occur in the environment? Also, discuss how specific heat maintains a livable environment on Earth.	CLO-1	PLO-1
Q. 03	How do the laws of thermodynamics apply to ecosystems? Describe the movement of energy and matter in ecosystems.	CLO-1	PLO-2

THE END

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

MID SEMESTER REGULAR EXAMINATION OF SECOND SEMESTER – FIRST YEAR 2021 OF 20 BATCH B.E (EE)

SUBJECT: SURVEYING & LEVELING

Dated: 15.10.2021 Maximum Marks: 20 Time Allowed: 1 hour.

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

Q. No.	Question Statement	*CLO*	*Marks*
Q. 01	Define surveying. Discuss in detail the classification of surveying.	*CLO 1*	*10*
Q. 02	What is the chain surveying? What are the different types of chains used in surveying?	*CLO 1*	*10*
Q. 03	What is the difference between whole circle bearing and Quadrantal bearing? Convert the following whole circle bearings into reduced bearings: i. Convert WCB = 45° to RB ii. Convert WCB = 150° to RB iii. Convert WCB = 230° to RB iv. Convert WCB = 320° to RB	*CLO 1*	*10*

Good Luck

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

MID-SEMESTER EXAMINATION OF SECOND SEMESTER – FIRST YEAR (2ND SEMESTER) 20-BATCH B.E (EE)

SUBJECT: INTRODUCTION TO MICROBIOLOGY

Dated: 11.10.2021 Maximum Marks: 10 Time Allowed: 45 Minutes

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

Q. No.		Questions	CLO	Marks
Q. 01	(a)	Define microbiology, microbes, antibiotics, pathogens, disease and cell.	1	2.5
	(b)	Describe the contributions of Louis Pasteur in the field of microbiology.	2	2.5
Q. 02	(a)	Enlist common infectious diseases, microbes that cause diseases and its types or summarize the list of equipment/apparatus used in microbiology laboratory.	1	2.5
	(b)	How milk is being converted into curd by microorganisms? Discuss.	2	2.5
Q. 03	(a)	State cell theory with special reference to Schelden, Schwann and Rudolf Virchow.	1	2.5
	(b)	Illustrate cell structure and describe the functions of major cell parts.	2	2.5

Consistent hard work leads to success

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

MID-SEMESTER EXAMINATION OF SECOND SEMESTER – FIRST YEAR (2ND SEMESTER) 20-BATCH B.E (ESE,EE) BS(IT,MS,ENG)

SUBJECT: PAKISTAN STUDIES

Dated: 14.10.2021 Maximum Marks: 10 Time Allowed: 45 Minutes.

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

Q.01 How did Sir Sayed Ahmed Khan bring Muslims out of ignorance and backwardness?

Q.02 Discuss the factors which paved the way for the establishment of All India Muslim League?

Q.03 "Khilafat movement was emotional movement", Discuss.

The End

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

FINAL SEMESTER REGULAR EXAMINATION OF SECOND SEMESTER – FIRST YEAR 2021 OF 20 BATCH, B.E (EE)

SUBJECT: ENVIRONMENTAL PHYSICS

Dated: 06.12.2021 Maximum Marks: 60 Time Allowed: 3 Hours.

NOTE: ATTEMPT ALL QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS

Q. No.	Questions	CLO	PLO	Marks
Q. 01	How "Adiabatic and Environmental Lapse Rate" can be explained? What causes atmospheric stability? How do atmospheric stability conditions affect the behaviour of plume? Enlist the different types of plume behaviour.	CLO-2	PLO-1	12
Q. 02	How pollutants are transported in the environment? Describe the mechanism of pollutants transportation in atmosphere and briefly discuss the factors affecting the transport and dispersion of air pollution.	CLO-2	PLO-2	12
Q. 03	What is energy and what do you know about it? What are the sources of renewable and non-renewable resources? How do you summarize solar energy? Briefly discuss solar energy conversion technologies.	CLO-2	PLO-2	12
Q. 04	What do you mean by radioactivity? Highlights the types and sources of radioactivity and briefly discuss its effects on humans. Also, provide the overview of environmental impacts of the Chernobyl Nuclear Disaster.	CLO-3	PLO-7	12
Q. 05	What effects are caused by rotation and revolution of Earth? How is a cyclone formed? Briefly discuss the role of rotation and revolution of Earth on the formation of tropical cyclones.	CLO-3	PLO-3	12

THE END

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

FINAL SEMESTER REGULAR EXAMINATION OF SECOND SEMESTER – FIRST YEAR, 2021 OF 20 BATCH, B.E (EE)

SUBJECT: SURVEYING & LEVELING

Dated: 09.12.2021 Maximum Marks: 60 Time Allowed: 3 Hours.

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

<table>
<tr><th>Q.</th><th>QUESTION</th><th>CLO</th><th>Taxonomy Level</th><th>Marks</th></tr>
<tr><td>Q. 01</td><td>Explain the principle of Chain surveying. Discuss in detail the types and causes of error in chain surveying.</td><td>1</td><td>3</td><td>12</td></tr>
<tr><td>Q. 02</td><td>What is local attraction? Calculate the interior angles of traverse ABCD.
<table>
<tr><th>Line</th><th>Fore bearing</th><th>Back bearing</th></tr>
<tr><td>AB</td><td>40°</td><td>220°</td></tr>
<tr><td>BC</td><td>120°</td><td>300°</td></tr>
<tr><td>CD</td><td>240°</td><td>60°</td></tr>
<tr><td>DA</td><td>340°</td><td>160°</td></tr>
</table></td><td>2</td><td>4</td><td>12</td></tr>
<tr><td>Q. 03</td><td>Define traverse survey. Discuss in detail the different types of traverse. Following are the length and bearing of the sides closed traverse ABCD. Calculate length of DA and its bearing
<table>
<tr><th>Line</th><th>Side (meter)</th><th>Bearing</th></tr>
<tr><td>AB</td><td>78.2</td><td>140° 12'</td></tr>
<tr><td>BC</td><td>198</td><td>36° 24'</td></tr>
<tr><td>CD</td><td>37.8</td><td>338° 48'</td></tr>
<tr><td>DA</td><td>?</td><td>?</td></tr>
</table></td><td>2</td><td>4</td><td>12</td></tr>
<tr><td>Q. 04</td><td>Write a brief note on variations in magnetic declination. The bearing of line OA, OB, OC and OD are 30°30', 140°15', 220°45' and 310°30', respectively. Find the angles AOB, BOC and COD.</td><td>1</td><td>3</td><td>12</td></tr>
<tr><td>Q. 05</td><td>Define leveling and its different types. Explain the different terms related to leveling. The following readings were observed with a levelling instrument, the instrument was shifted after 5th and 11th reading 0.585, 1.010, 1.735, 3.295, 3.775(5th), 0.350, 1.300, 1.795, 2.575, 3.375, 3.895 (11th), 1.735, 0.635, 1.605. Determine the RLs of various points if the reduced level (RL) of a point on which the first reading was taken is 136.440 meter gives the height of collimation method and applies the check.</td><td>2</td><td>4</td><td>12</td></tr>
</table>

The End

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

FINAL SEMESTER REGULAR EXAMINATION OF SECOND SEMESTER – FIRST YEAR, 2021 OF 20-BATCH, B.E (EE)

SUBJECT: APPLIED CALCULUS

Dated: 16.12.2021 Maximum Marks: 60 Time Allowed: 3 Hours.

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

Q. No.	QUESTIONS	CLO	Taxon Level	PLO	Marks
Q.1(a)	Prove that $\lim_{x\to 0}\frac{\lvert x\rvert}{x}$ does not exist.	CLO-2	C-3	4	[04]
Q.1(b)	By using Squeeze Theorem, show that: $$\lim_{x\to 0} x^2 \sin\left(\frac{1}{x}\right) = 0$$	CLO-2	C-3	4	[08]
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) fg (iii) $\frac{f}{g}, g \neq 0$ (iv) cf	CLO-2	C-3	4	[12]
Q.3	Suppose that f is continuous on the closed interval $[a, b]$ and let K be any number between $f(a)$ and $f(b)$, where $f(a) \neq f(b)$. Then show that, there exist a number c in (a, b) such that $f(c) = N$.	CLO-3	C-2	4	[12]
Q. 4 (a)	If r is a rational function then show that $\lim_{x\to a} r(x) = r(a)$.	CLO-2	C-3	4	[6]
Q. 4 (b)	Show that the function $f(x) = 1 - \sqrt{1 - x^2}$ is continuous on the interval $[-1, 1]$.	CLO-3	C-3	4	[6]
Q. 5(a)	Find the horizontal and vertical asymptotes of the following function: $$f(x) = \frac{\sqrt{2x^2 + 1}}{3x - 5}$$	CLO-3	C-3	4	[6
Q. 5(b)	Find the equation of the tangent line to the parabola $y = x^2$ at the point $P(1, 1)$.	CLO-3	C-3	4	[

The End

FINAL SEMESTER REGULAR EXAMINATION OF SECOND SEMESTER – FIRST YEAR 2021 OF 20 BATCH

BE (ESE/EE) BS (IT/MG/ENG)

SUBJECT: PAKISTAN STUDIES

Date: 13.12.2021 Maximum Marks: 30 Time Allowed: 02 Hour

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

Q. #		Question	CLO	Mark
Q. 01		Analyze the Lahore Resolution and determine its place and role in the history of freedom movement.	1	10
Q. 02		Examine the reasons for transformation of East Pakistan into Bangladesh in 1971.	2	10
Q. 03		Discuss the causes hampered the Indo-Pak relations.	2	10

QUAID-E-AWAM UNIVERSITY
OF ENGINEERING, SCIENCE & TECHNOLOGY, NAWABSHAH
Ph.0244-9370373 Fax.0244-9370367, website.www.quest.edu.pk

No.QUEST/ESTT/NH/- **60** Dated: **04/01/2024**

SAY NO TO CORRUPTION

WALK-IN INTERVIEW

Department of Basic Sciences & Related Studies, Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah, is seeking for competency-based hiring purely on "per lecture" basis at the rate of PKR: 500/- per hour, for following subject:

- **ENGLISH**

Interested candidates with First Class bachelor's degree (sixteen years) in the relevant subject and **NO** 3rd division in the academic career, should appear for an interview along with the CV and one attested set of academic documents at the Committee Room, Vice Chancellor Secretariat, Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah, on **Thursday**, the **11th of January, 2024 at (11:00 am).**

No T.A / D.A shall be admissible.

This issues with approval of the Vice Chancellor.

REGISTRAR
Quaid-Awam University of Engg: Sciences &
Technology, Nawabshah.

FINAL SEMESTER REGULAR EXAMINATION OF SECOND SEMESTER – FIRST YEAR 2021 OF 20 BATCH

B.E (CSE/EE) B.S (IT/MS/ENG)

SUBJECT: PAKISTAN STUDIES

Dated: 13.12.2021 Maximum Marks: 30 Time Allowed: 02 Hours.

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

Q. #		Question	CLO	Marks
Q. 01		Analyze the Lahore Resolution and determine its place and role in the history of freedom movement.	1	10
Q. 02		Examine the reasons for transformation of East Pakistan into Bangladesh in 1971.	2	10
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QUAID-E-AWAM UNIVERSITY OF ENGINEERING, SCIENCE & TECHNOLOGY, NAWABSHAH

FINAL SEMESTER REGULAR EXAMINATION OF SECOND SEMESTER – FIRST YEAR 2021 OF 20 BATCH, B.E (EE)

SUBJECT: INTRODUCTION TO MICROBIOLOGY

Dated: 03.12.2021 Maximum Marks: 30 Time Allowed: 02 Hours.

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

Q. No.		Questions	CLO	Marks
Q. 01.		Define any ten of the following. Microbiology, Prokaryotes, Eukaryotes, Algae, Molds, Fungi, Protozoa, Flagella, Types of malarial parasites, Halophiles, Vaccination, Viral diseases, Structure of bacterial cell, Bacterial diseases.	1	10
Q. 02.	(a)	Enlist the phenotypic classification of bacteria.	1	05
	(b)	Compare the characteristics of archaebacteria and cyanobacteria.	2	05
Q. 03.		Why five kingdom classification system of organisms became acceptable to the most microbiologists. Describe the characteristics and structure of viruses.	2	10