

ADMISSIONGUIDE

FALL 2021



THE
UNIVERSITY OF
LAHORE

Department of Electronics and Electrical Systems

For Inquiry:
Admission Office:

UAN: 042 111 865 865 or 0333-6589010

1-Km Defence Road, Off Raiwind Road, Near Bhotatian Chowk
Lahore.

Web: www.uol.edu.pk Email: admissions@uol.edu.pk

Program Name: **BS IN ELECTRONICS & ELECTRICAL SYSTEMS (BSEES)**
Entry Requirements: 45% F.Sc (Pre-Eng.) /ICS (Math, Phys.)/A-Level /DAE (Electronics, Instrumentation, Control, Electrical, Computer, Telecomm) or equivalent
Program Duration: **4 Years** (08 semesters) 135 Credit Hours-Fulltime
Program Recognition: Higher Education Commission
Area of Specialization: **Communication and IT, Power, Electronics and Biomedical Electronics, Robotics and Artificial Intelligence**
Program Timing: 08:00AM TO 05:00PM
Classes Schedule Days: Tuesday to Saturday (Regular)
Entry Test: UOL Entry Test is Mandatory

Program Name: **MS IN ELECTRONICS & ELECTRICAL SYSTEMS (MSEES)**
Entry Requirements: Minimum 60% (Annual System) or 2.5 CGPA (Semester System)
BS Electronics/BSEE/BS Telecomm/B.Tech (Hons.) or BSCS or equivalent
Program Duration: **2 Years** (04 semesters) 30 Credit Hours
Program Recognition: Higher Education Commission
Area of Specialization: **Communication, Power System, Electronics and Biomedical Electronics**
Program Timing: 08:00AM TO 05:00PM
Classes Schedule Days: Friday, Saturday, Sunday
Entry Test and Interview: UOL Entry Test and Interview is Mandatory

SAMPLE TEST FOR BSEES PROGRAM

Section No.1 (Physics I)

1. A circle with radius 2cm is intersected by a line at point R and T the maximum possible distance between point R and T in centimeter is
 - A. 1
 - B. 2
 - C. 3
 - D. 4
2. A widow received $\frac{1}{9}$ of her husband's estate and each of her son received $\frac{1}{3}$ of the balance, if the widow and one of her sons received a total of 66,000 rupees from the estate. What was the amount of total estate?
 - A. 132,000
 - B. 96,000
 - C. **162,000**
 - D. 180,000
3. If $\frac{13}{4} - \frac{4}{8} = n$, then n is
 - A. Greater than 3
 - B. **Between 2 and 3**
 - C. Between 1 and 2
 - D. Between 0 and 1
4. Which of the following is not a multiple of both 7 and 13?
 - A. 182
 - B. 364
 - C. 455
 - D. **545**

Section No.2 (Math I)

1. If ${}^n P_2 = 20$ then n = _____
 - A. 4
 - B. **5**
 - C. 6
 - D. 10
2. If $f(x) = 2x^2 + 2$ and $g(x) = 5x + 2$ then value of $f[g(1)]$ is
 - A. 51
 - B. 99
 - C. **100**
 - D. 98
3. $\frac{d}{dt} \left(\frac{1}{t} \right) = \dots\dots\dots$
 - A. $-1/t$
 - B. $1/t^2$
 - C. 1
 - D. **$-1/t^2$**

4. If A & B are independent events then $P(A \cap B) =$ _____
- A. $P(A) + P(B) - P(P \cap B)$
 - B. **$P(A) \times P(B)$**
 - C. $P(A) + P(B)$
 - D. None

Section No.3 (Math II)

1. The unit of strain is,
 - A. Nm
 - B. N/m^2
 - C. **no unit**
 - D. Nm^2
2. Which device is used as a rectifier?
 - A. Capacitor
 - B. Transistor
 - C. **Diode**
 - D. Transformer
3. The unit of radioactivity is,
 - A. **Becquerel**
 - B. Henry
 - C. Pascal
 - D. Joules
4. 1 tesla =
 - A. $NA^{-1}m^{-1}$
 - B. N/Am^2
 - C. **Weber /m²**
 - D. None of above

Section No.4 (English)

1. My home is as _____ your house.
 - A. bigger
 - B. **big**
 - C. biggest
 - D. the big
2. I filed _____ FIR in the police station.
 - A. a
 - B. **an**
 - C. the
 - D. None of the above
3. What is the synonym of word "Ameliorate" ?
 - A. Frequent
 - B. Precious
 - C. Keen
 - D. **to improve**
4. What is the antonym of word "Outwit" ?
 - A. Laugh
 - B. **Defeat**
 - C. Victory
 - D. Win

Section No.5 (PhysicsII)

1. If friction is negligible, when a gas is compressed rapidly
 - A. its temperature remains the same
 - B. its temperature goes down
 - C. **its temperature rises**
 - D. it is liquefied
2. When light emerges from water and enters air,
 - A. the light will be reflected
 - B. **the speed of light will increase**
 - C. the speed of light will decrease
 - D. the frequency of the light will increase.
3. The vector product is
 - A. commutative
 - B. subtractive
 - C. **associative**
 - D. additive

SAMPLE TEST FOR MSEES PROGRAMS

Note: All questions are of worth 1 mark each. Section A and Section B are compulsory. Select optional section according to your area of specialization in which you want to continue your MSEES i.e., if your specialization is communication then select communication etc.

This is only a **SAMPLE TEST**, therefore, only few questions are given here. Actual test may contain more questions in each part.

Section A MATHEMATICS

- 1) In the Complex Plane, the number $0.4 - j1.007$ is located in the
 - A. Second quadrant.
 - B. First quadrant
 - C. Third quadrant
 - D. Fourth quadrant
- 2) If $A^T = A^{-1}$, where A is a real matrix, then A is
 - A. Systematic
 - B. Orthogonal
 - C. Normal
 - D. None
- 3) If events A and B are independent then
 - A. $P(A)=0$
 - B. $P(AB) = P(A)P(B)$
 - C. $P(B)=0$
 - D. None of the above

Section B
Circuit Analysis, Signal & System, DLD etc.

- 1) The Boolean Function $A+BC$ is a reduced form which one of the following?
 - A. $AB + BC$.
 - B. $A'B + AB'C$.
 - C. $(A+B) \cdot (A+C)$.
 - D. None of the above

- 2) Unit Step is a
 - A. Energy signal
 - B. Power signal
 - C. Neither Energy nor power
 - D. Both A and B

- 3) When a sinusoidal voltage is applied across R-L series circuit having $R=X_L$, the phase angle will be
 - A. 90°
 - B. 45° lagging
 - C. 45° leading
 - D. 90° leading

OPTIONAL SECTION (COMMUNICATION)

- 1) Which of the following modulation is analog in nature?
 - A. PCM
 - B. DPCM
 - C. DM
 - D. PDM

- 2) The disadvantage of FM over AM is that
 - A. High output power is needed
 - B. High modulating power is needed
 - C. Noise is very high for high frequency
 - D. Large bandwidth is required

- 3) Antenna is a element
 - A. Passive
 - B. Active
 - C. Resistive
 - D. Capacitive

OPTIONAL SECTION (POWER)

- 1) The simplest and most commonly used method for temperature control is
 - E. External series resistance in the heating circuit.
 - F. Change of connection heating circuit.
 - G. Use of variable number of heating elements.
 - H. Transformer tapping

- 2) Induction furnaces are used for
- E. Heat treatment of casting.
 - F. Heat of insulators.
 - G. Melting of aluminum.
 - H. All of the above.
- 3) The coal that has highest ash content is
- E. Lignite
 - F. Cooking coal
 - G. Bituminous
 - H. Steam Coal

OPTIONAL SECTION (ELECTRONICS & BIOMEDICAL ELECTRONICS)

- 1) Which of the following electronic devices are voltage-controlled?
- A. Diode
 - B. BJT
 - C. MOSFET
 - D. None of the above
- 2) Operational amplifier can be modeled as:
- A. Voltage-controlled voltage source (VCVS)
 - B. Resistive network
 - C. Current-controlled current source (CCCS)
 - D. A passive network
- 3) Basic sources of biomedical signals are:
- A. Excitable cells
 - B. Blood cells
 - C. Muscular cells
 - D. None of the above