

## **Paper Pattern**

Program: **MS Electrical Engineering**

Time Allowed: 3 hours (180 Mins)

Paper Type: 1) Objective (MCQs based) and 2) Subjective

Sections: 1) Verbal 2) Quantitative 3) Analytical Reasoning 4) Subjective

Total Questions: 103

Passing Marks: Objective (60 out of 100), Subjective (10 out of 25)

Details of Sections:

**Verbal:** 30 questions

**Quantitative:** 40 questions

**Analytical Reasoning:** 30 questions

**Subjective:** 03 questions (Electrical Engineering)

### **Important Instructions:**

- A candidate must score a minimum 60% marks in aggregate to pass the test.
- Answers are to be attempted on the answer sheet, which is being provided separately with the question paper.
- Encircle the most appropriate choice. Multiple selection will be considered an incorrect answer.
- Calculators & Mathematical tables are not allowed.
- Keep your mobile phone turned off. Any mobile phone found active / on will be confiscated and the candidate will be disqualified for the test.

## Model Paper

### Section I - Verbal

1) We need more men and women of culture and enlightenment in our society; we have too many \_\_\_\_ among us.

- A) Pedants  
B) Philistines  
C) Ascetics  
D) Paragons

2) Many educators argue that a \_\_\_\_\_ grouping of students would improve instruction because it would limit the range of student abilities in the classroom.

- A) heterogeneous  
B) Systematic  
C) homogeneous  
D) Sporadic

### Analogies

3) AQUEDUCT : WATER

- A) Capillary : saliva  
B) Esophagus : breath  
C) Tanker : fluids  
D) Artery : blood

4) ENZYME : CATALYST

- A) Vaccine : allergy  
B) Gland : muscle  
C) Neuron : corpuscle  
D) Bacterium : microbe

### Section II – Analytical

**Direction:** Each question or group of questions is based on a passage or set of conditions. In answering some of the question. It may be useful to draw a rough diagram. For each question, select the best answer choice given.

Question 1-2

In an office each of the nine employees – P, Q, S, T, U, V, W, and X – is to be assigned his or her own mailbox. The boxes, which are all the same size, are arranged in three rows of three boxes each with each box directly above and /or below another box. The boxes are numbered from left to right – 1 to 3 in the top row, 4 to 6 in the middle row, and 7 to 9 in the bottom row. The assignments are subject to the following restrictions.

P is to be assigned box 5.

Q is to be assigned box directly above T's box

R is to be assigned box in the bottom row.

U is to be assigned the box directly to the left of V's box  
X is to be assigned the box directly above P's box

1) X must be assigned a box

- A) 1  
C) 3
- B) 2  
D) 4

2) Which of the following group of three people could be assigned boxes 4,5 and 6 respectively?

- A) P, V, and T  
C) S, P, and T
- B) Q, P, and S  
D) T, Q, and P

### Section III – Quantitative

1) The average age of a class of 40 students is 12 years. If the teacher age is also included, the average age increases by one year. The teacher's age is:

- A) 41 years  
C) 53 years
- B) 52 years  
D) 54 years

2) Zahid sells a watch to Abrar at a gain of 10% and Abrar sells it to Suhail at a gain of 5%. If Suhail must pay Rs. 462 for it, the cost price of the watch for Zahid is:

- A) Rs. 300  
C) Rs. 500
- B) Rs. 400  
D) Rs. 600

3) A class of students obtained an average of 45 marks; on re-checking it was found that marks had been entered wrongly in two cases. After correction these marks were increased by 24 and 36. The corrected average marks per student are

- A) 47  
C) 60
- B) 56  
D) 75

4) A student loses a mark for every wrong answer and scores 2 marks for every correct answer. If the answers all the 60 questions in an exam. and secure 39 marks, how many of them were correct?

- A) 27  
C) 33
- B) 31  
D) 37

## **Section IV – Subjective (Electrical Engineering)**

Q#1: Explain the difference between a hub, switch, and router in computer networks?

Q#2: Explain any two multiple access schemes?

Q#3: Explain the process of digitization? Explain the aliasing effect in terms of the sampling theorem.