

National University of Modern Languages Rawalpindi

Faculty of Engineering & Computer Science

Entry Test Paper Pattern

Program: **BSCS / BSSE / BEEE / BS Elect / BSAI / BSIT**

Time Allowed: 1 hour (60 Mins)

Paper Type: Objective type (MCQs based)

Total Questions: 75

Sections: Four

Details of Sections:

Pre- Medical Group:

- | | | |
|------|----------------------|----------------|
| i. | Section II: English | (15 questions) |
| ii. | Section III: Physics | (20 questions) |
| iii. | Section I: Chemistry | (20 questions) |
| iv. | Section IV: Biology | (20 questions) |

Pre- Engineering Group:

- | | | |
|-------|------------------------|----------------|
| v. | Section II: English | (15 questions) |
| vi. | Section III: Physics | (20 questions) |
| vii. | Section I: Mathematics | (20 questions) |
| viii. | Section IV: Chemistry | (20 questions) |

ICS and Others Group:

- | | | |
|------|------------------------|----------------|
| ix. | Section II: English | (15 questions) |
| x. | Section III: Physics | (20 questions) |
| xi. | Section I: Mathematics | (20 questions) |
| xii. | Section IV: Computers | (20 questions) |

Note: Calculator are **NOT** allowed

Model Paper

Section I - Mathematics

| | | | | |
|----|---|--------------|----|---------------|
| 1- | If $(x) = e^{2x}$, then $f'''(x) =$ | | | |
| | A) | $6e^{2x}$ | B) | $1/6e^{2x}$ |
| | C) | $8e^{2x}$ | D) | $1/8e^{2x}$ |
| 2- | A man buys a cycle for Rs. 1400 and sells it at a loss of 20%. What is the selling price of the cycle? | | | |
| | A) | A) | A) | A) |
| | C) | C) | C) | C) |
| 3- | The graph of linear function is: | | | |
| | A) | Circle | B) | Straight Line |
| | C) | Parabola | D) | Triangle |
| 4- | Two surfaces are said to be orthogonal at a point of their intersection if their normal at that point are | | | |
| | A) | A) | A) | A) |
| | C) | C) | C) | C) |
| 5- | $\frac{d}{dx}e^{-2x}$ | | | |
| | A) | e^{-2x} | B) | $-2e^{-2x}$ |
| | C) | $-2xe^{-2x}$ | D) | $1/e^{2x}$ |

Section II – English

| | | | | |
|----|--|------------------------------------|----|--------------------------------|
| 1- | The Prime Minister will appear _____ television tonight. | | | |
| | A) | A) | A) | A) |
| | C) | C) | C) | C) |
| 2- | She speaks three languages _____ Urdu. | | | |
| | A) | Although | B) | Besides |
| | C) | Whereas | D) | Along |
| 3- | She said, "I may drive there", | | | |
| | A) | She said that she may driven there | B) | She said she might drive there |
| | C) | She said she may drive | D) | She said she has driven there |
| 4- | I _____ him to go. | | | |
| | A) | Told | B) | Spoke |
| | C) | Said | D) | Let |
| 5- | Synonym of Dreadful | | | |
| | A) | Enrage | B) | Wrathful |
| | C) | Awful | D) | Furious |

Section III – Physics

| | | | | |
|-----------|--|--------------------|----|----------------------|
| 1- | Emissivity of perfectly black body is | | | |
| | A) | A) | A) | A) |
| | C) | C) | C) | C) |
| 2- | Work done will be maximum when angle between Force and displacement is | | | |
| | A) | 180 | B) | 60 |
| | C) | 90 | D) | 0 |
| 3- | Energy transforming process that occur within an organism are named as | | | |
| | A) | A) | A) | A) |
| | C) | C) | C) | C) |
| 4- | _____ is equal to the amount of current multiplied by the resistance | | | |
| | A) | Potential | B) | Potential Difference |
| | C) | Charge | D) | Current |
| 5- | Two long current carrying wires attract each other when currents are in | | | |
| | A) | Opposite Direction | B) | Same Direction |
| | C) | Parallel Direction | D) | Series |

Section IV – Computers

| | | | | |
|-----------|---|------------------------|----|--------------------------|
| 1- | MS-DOS has | | | |
| | A) | Command Line Interface | B) | Graphical User Interface |
| | C) | Menu Line Interface | D) | Utility Driven Interface |
| 2- | Identify the device through which data and instructions are entered into a computer? | | | |
| | A) | Software | B) | Input Device |
| | C) | Output Device | D) | Memory |
| 3- | (35)₁₀ = ()₂? | | | |
| | A) | 100011 | B) | 110011 |
| | C) | 100001 | D) | 111001 |
| 4- | Arrange in descending order the units of memory TB, KB, GB, MB | | | |
| | A) | TB>MB>GB>KB | B) | MB>GB>TB>KB |
| | C) | TB>GB>MB>KB | D) | GB>MB>KB>TB |
| 5- | The term _____ is used to refer to a row. | | | |
| | A) | Attribute | B) | Tuple |
| | C) | Instance | D) | Field |

Section V – Chemistry

| | | | | |
|-----------|--|-----------------------------------|----|--------------------------|
| 1- | The term PVC used in the plastic industry stands for | | | |
| | A) | Polyvinyl chloride | B) | Polyvinyl carbonate |
| | C) | Phosphors vanadium Chloride | D) | Polyvinyl carbocarbonate |
| 2- | The material that can be deformed permanently by heat and pressure is called a | | | |
| | A) | Polymer | B) | Thermoplastic |
| | C) | Chemical Compound | D) | Thermoset |
| 3- | Valency of Hydroxide ion (OH) is | | | |
| | A) | -1 | B) | -2 |
| | C) | -3 | D) | 1 |
| 4- | Atmosphere contains dust particles, salt grains, pollen grains, smoke, etc. which are collectively known as : | | | |
| | A) | Water vapour | B) | Ozone |
| | C) | Aerosols | D) | CFC |
| 5- | The Formula of Sodium Hydroxide is | | | |
| | A) | Na(OH) ₂ | B) | NaOH |
| | C) | Na ₂ (OH) ₃ | D) | Na ₂ OH |

Section VI – Biology (Pre-Medical)

| | | | | |
|-----------|--|---------------|----|--------------|
| 1- | For the impulse of transfer from presynaptic to post-presynaptic neuron, the substance required is | | | |
| | A) | Sodium | B) | Potassium |
| | C) | Proteins | D) | Calcium |
| 2- | Study of form and structures of living organism | | | |
| | A) | Skeletology | B) | Microbiology |
| | C) | Morphology | D) | Biochemistry |
| 3- | A _____ is defined as a group of organisms capable of interbreeding and producing fertile offspring | | | |
| | A) | population | B) | Species |
| | C) | Prokaryotes | D) | Community |
| 4- | A Family is a group of related | | | |
| | A) | Genera | B) | Order |
| | C) | Species | D) | Phylum |
| 5- | Pores in the cell walls of adjacent cells, through which their cytoplasm is connected | | | |
| | A) | Peptidoglycan | B) | Protoplasm |
| | C) | Plasmodesmata | D) | Chitin |