

Term End External Examination 1<sup>st</sup> Semester (Session-Feb 2025)

Subject: Information Technology

Course No and Title: BIT122M/ Basics of Information Technology

Time: 2.15 hours Max Marks:100 Min. Marks:40

**Section A: Objective Type Questions**

- Q1. Choose the appropriate Answer: (8x1.5=12)**
- i. Which technology was used by 3rd generation computers?
 

A Transistors	B Vacuum tubes
C Resistors	D Integrated circuits
  - ii. Which memory is used to store frequently accessed data to speed up processing?
 

A Flash memory	B Ram
C Hard disk	D Cache
  - iii. What is the hexadecimal equivalent of the binary number 110110?
 

A 20	B 35
C 25	D 45
  - iv. What is the binary equivalent of the decimal number 57?
 

A 111001	B 101111
C 110111	D 110101
  - v. What is the frequency range used by the microwave transmission media?
 

A 1 Hz to 100 Hz	B 1 MHz to 100 MHz
C 1 GHz to 300 GHz	D 1000 GHz to 10,000 GHz
  - vi. What is the maximum distance for effective transmission over a single UTP (Unshielded Twisted Pair) cable, without signal amplification?
 

A 50 meters	B 100 meters
C 200 meters	D 300 meters
  - vii. How can you add a page break in a Word document?
 

A Press Ctrl + Enter	B Press Ctrl + S
C Press Ctrl + P	D Press Ctrl + B
  - viii. Which of the following functions is used to find the highest number in a range of cells?
 

A =HIGH()	B =LARGE()
C =MAX()	D =MIN()

**Section-B: Descriptive Type Questions (Short Type)**

**Q2: Answer all the Questions (8 x 4 =32)**

- i. What is an open source software? Give examples?
- ii. Write a short note on input and output devices?
- iii. Convert the hexadecimal number 1A3 to binary?
- iv. Convert the binary number 1111001 to hexadecimal?
- v. What are modulation and demodulation techniques?
- vi. Differentiate between simplex, half duplex and full duplex modes of transmission?
- vii. What is the difference between the LEFT, RIGHT, and MID functions in Excel?
- viii. What is the VLOOKUP function in Excel and how does it work?

**Section – C: Descriptive Type Questions (Medium Type)**

**Answer all the questions: (4 x 7=28)**

- Q3.** Differentiate between primary memory and secondary memory in computers?
- OR**
- What are translators? Explain different type of translators?
- Q4.** What is the difference between fixed-point and floating-point number representation in binary?
- OR**
- Explain the concept of two's complement and how it is used for representing negative numbers?
- Q5.** Explain different Network Topologies with examples?
- OR**
- What is a computer network? Explain its different types and advantages?
- Q6.** What are Excel's data visualization tools? Explain how do they assist in interpreting large sets of data?

**OR**

Explain the different types of layouts in PowerPoint and their appropriate usage?

**Section – D: Descriptive Type Questions (Long Type)**

**Answer any two of the following: (2 x 14=28)**

- Q7.** Define operating system? Explain different types of operating system and its functions?
- Q8.** Explain the different types of number system used in computing and provide examples?
- Q9.** What is transmission media? Explain guided and unguided transmission media in detail?
- Q10.** Describe the various types of Excel functions and provide examples of their usage?