Total No. of Questions: 6 *Total No. of Printed Pages:2*

Enrollment No.....

Faculty of Engineering

End Sem (Even) Examination May-2019

EN3ES05 Basic Computer Engineering

Programme: B.Tech. Branch/Specialisation: All

Duration: 3 Hrs. **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1 i. Once the contents are written, cannot be modified in **1**
(a) RAM (b) ROM
(c) Secondary memory (d) All of these

ii. Which of the following is not an input device? **1**
(a) Joystick (b) Scanner (c) OCR (d) None of these

iii. Which of the following scheduler is also known as process scheduler? **1**
(a) CPU scheduler (b) Job scheduler
(c) Long term scheduler (d) Midterm scheduler

iv. The job becomes process in which of the following states **1**
(a) New (b) Ready (c) Waiting (d) Running

v. The rows if relation is also called **1**
(a) Domain (b) Attribute (c) Tuple (d) Table

vi. SQL is a **1**
(a) DML (b) DDL (c) DCL (d) All of these

vii. Which of the following network connects the computer system across a large geographical area? **1**
(a) LAN (b) WAN (c) MAN (d) Intranet

viii. Which of the following is used at network layer of OSI network model? **1**
(a) Switch (b) Gateway (c) Router (d) Repeater

ix. Which of the following is said to be first generation language? **1**
(a) Machine (b) Symbolic (c) High-level (d) Assembly

P.T.O.

x. C++ is a **1**
(a) Procedural language (b) functional language
(c) Declarative language (d) object-oriented language

Q.2 Attempt any two:
i. Draw the block diagram of computer. Explain each component. **5**
ii. What is the purpose of input devices? Explain three input devices in detail. **5**
iii. What is memory? What are the different types of memory? **5**

Q.3 Attempt any two:
i. What are the different kinds of data models? **5**
ii. Explain the functions of DBA. **5**
iii. Explain three level schema architecture with diagram. **5**

Q.4 Attempt any two:
i. Explain diagrammatically different states of process. **5**
ii. What is deadlock? What is the necessary condition for deadlock to occur? **5**
iii. What are the different functions of a operating system? **5**

Q.5 Attempt any two:
i. Discuss the various topologies commonly used in computer network. **5**
ii. Define TCP/IP model in detail. **5**
iii. Define the following terms: **5**
(a) Internet (b) WWW (c) E-mail
(d) Virus (e) Worms

Q.6 Attempt any two:
i. Explain the categories of programming language. **5**
ii. What are the characteristics of good programming language? **5**
iii. Differentiate between: **5**
(a) System software and application software.
(b) Hardware and software.

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Marking Scheme
EN3ES05 Basic Computer Engineering

Q.1	i.	Once the contents are written, cannot be modified in (b) ROM		**1**
	ii.	Which of the following is not an input device? (d) None of these		**1**
	iii.	Which of the following scheduler is also known as process scheduler? (a) CPU scheduler		**1**
	iv.	The job becomes process in which of the following states (a) New		**1**
	v.	The rows if relation is also called (c) Tuple		**1**
	vi.	SQL is a (d) All of these		**1**
	vii.	Which of the following network connects the computer system across a large geographical area? (b) WAN		**1**
	viii.	Which of the following is used at network layer of OSI network model? (c) Router		**1**
	ix.	Which of the following is said to be first generation language? (a) Machine		**1**
	x.	C++ is a (d) object-oriented language		**1**
Q.2		Attempt any two:		
	i.	Diagram of computer	2 marks	**5**
		Explanation of components	3 marks	
	ii.	Purpose of input devices	2 marks	**5**
		Three input devices	3 marks	
	iii.	Memory definition	1 mark	**5**
		Types of memory	1 mark	
		Explanation of types	3 marks	
Q.3		Attempt any two:		
	i.	Kinds of data models		**5**
		1 mark for each data model	(1 mark * 5)	
	ii.	Functions of DBA.		**5**
		1 mark for each function	(1 mark * 5)	
	iii.	Three level schema architecture	3 marks	**5**
		Diagram.	2 marks	
Q.4		Attempt any two:		
	i.	States of process.		**5**
		Diagram	2 marks	
		For explaining all states	3 marks	
	ii.	Deadlock	1 mark	**5**
		Condition for deadlock	4 marks	
	iii.	Functions of a operating system		**5**
		1 mark for each function	(1 mark * 5)	
Q.5		Attempt any two:		
	i.	Topologies commonly used in computer network.		**5**
		1 mark for each topology	(1 mark * 5)	
	ii.	TCP/IP model		**5**
		Diagram	2 marks	
		Explanation	3 marks	
	iii.	Define the following terms: 1 mark for each	(1 mark * 5)	**5**
		(a) Internet (b) WWW (c) E-mail (d) Virus (e) Worms		
Q.6		Attempt any two:		
	i.	Categories of programming language.		**5**
		1 mark for each generation	(1 mark * 5)	
	ii.	Characteristics of good programming language		**5**
		At least 5 points 1 mark for each	(1 mark * 5)	
	iii.	Differentiate between:		**5**
		(a) System software and application software.		
		At least three differences	2.5 marks	
		(b) Hardware and software.		
		At least three differences	2.5 marks	

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