

[illegible]

[Time : 2:30 Hours]

[Max. Marks : 50]

Note/Instructions: Additional sheets may be used, if required.

- i. Attempt all questions as per given instructions. दिए गए निर्देशों के अनुसार सभी प्रश्नों का प्रयास करें।
ii. Marks are indicated against each section. प्रत्येक खंड के खिलाफ निशान दर्शाए गए हैं।
iii. Assume missing data if any. अनुपस्थित डेटा मान लें यदि कोई हो।

Ques.1	Answer ANY TWO of the following questions	(5X 2=10)
(a)	What is data structure and also define its type?	
(b)	Describe tower of Hanoi problem. With help of example.	
(c)	What is abstract data type? Explain its model.	
Ques.2	Answer ANY TWO of the following questions	(5X 2=10)
(a)	What is BST explain with the help of an example?	
(b)	Define the following:- (a) Similar tree and copies of tree (b) Parent and siblings	
(c)	Difference between complexity and algorithm?	
Ques.3	Answer ANY TWO of the following questions	(5X 2=10)
(a)	What do you understand by garbage collection?	
(b)	What is queue? Also define its operations.	
(c)	What is AVL search tree? Define with the help of example.	
Ques.4	Answer ANY TWO of the following questions	(5X 2=10)
(a)	Consider the following list of elements – C,S,T,U,A,B,W,Z,R,Y,D Create a three way search tree.	
(b)	Write any one type of rotation used to insert an element into an AVL search tree with example.	
(c)	Define Data Structure. What is difference between Linear data structure and Non linear data structure	
Ques.5	Answer ANY TWO of the following questions	(5X 2=10)
(a)	Create a binary tree from the following – Post order: D F E B G L J K H C A Pre order: A B D E F C G H J L K – In order: D B F E A G C L J H K.	
(b)	Sort the following elements by using INSERTION sort 77,33,44,11,88,22,66,55	
(c)	conversion of infix into prefix without using stack $A+(B-(C*D \uparrow F/G)+H)/I$	

Enrollment No.

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DIPLOMA IN ENGG. (CSE)
II YEAR, III SEM. EXAMINATION

DATA COMMUNICATION AND COMPUTER NETWORK

[Time : 2:30 Hours]

[Max. Marks : 50]

Note/Instructions: Additional sheets may be used, if required.

i. Attempt all questions as per given instructions. दिए गए निर्देशों के अनुसार सभी प्रश्नों का प्रयास करें।		
ii. Marks are indicated against each section. प्रत्येक खंड के खिलाफ निशान दर्शाए गए हैं।		
iii. Assume missing data if any. अनुपस्थित डेटा मान लें यदि कोई हो।		
iv. Scientific calculator is allowed. वैज्ञानिक कैलकुलेटर की अनुमति है।		
Ques.1	Answer ANY TWO of the following questions	(5X 2=10)
(a)	What is the internet address , explain class A ,class B and class C with diagram ?	
(b)	What is the WAN?	
(c)	What is the OSI model ,explain with diagram ?	
Ques.2	Answer ANY TWO of the following questions	(5X 2=10)
(a)	What is topology .explain any two with diagram and advantage ?	
(b)	What is the topology and explain bus topology with advantage and disadvantage ?	
(c)	Explain difference between IPV4 and IPV6?	
Ques.3	Answer ANY TWO of the following questions	(5X 2=10)
(a)	What is the half duplex mode explain with example ?	
(b)	what is the TCP/IP model ,explain ?	
(c)	what is the MAN explain with example ?	
Ques.4	Answer ANY TWO of the following questions	(5X 2=10)
(a)	What is the TDM and FDM ?	
(b)	What is the star topology explain with advantage and disadvantage ?	
(c)	Explain about HTTP, SMTP and UDP protocol ?	
Ques.5	Answer ANY TWO of the following questions	(5X 2=10)
(a)	Explain LAN with example ?	
(b)	Explain about router , Hub ,repeater and gateway ?	
(c)	What is the difference between TCP and UDP?	

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DIPLOMA IN ENGG. (CSE)
II YEAR, III SEM. EXAMINATION
INTERNET AND WEB TECHNOLOGY

[Time : 2:30 Hours]

[Max. Marks : 50]

Note/Instructions: Additional sheets may be used, if required.

i. Attempt all questions as per given instructions. दिए गए निर्देशों के अनुसार सभी प्रश्नों का प्रयास करें।		
ii. Marks are indicated against each section. प्रत्येक खंड के खिलाफ निशान दर्शाए गए हैं।		
iii. Assume missing data if any. अनुपस्थित डेटा मान लें यदि कोई हो।		
iv. Scientific calculator is allowed. वैज्ञानिक कैलकुलेटर की अनुमति है।		
Ques.1	Answer ANY TWO of the following questionsनिम्नलिखित प्रश्नों में से किसी दो का उत्तर दें	(5X 2=10)
(a)	Explain Domain Name Server and Internet Service Provider.	
(b)	Explain E-mail facilities, lists and Services.	
(c)	What is difference between Intranet and Internet	
Ques.2	Answer ANY TWO of the following questionsनिम्नलिखित प्रश्नों में से किसी दो का उत्तर दें	(5X 2=10)
(a)	What is LAN, WAN, MAN?	
(b)	What is XML? And write a program.	
(c)	Describe Developers tools and How we use in detail.	
Ques.3	Answer ANY TWO of the following questionsनिम्नलिखित प्रश्नों में से किसी दो का उत्तर दें	(5X 2=10)
(a)	What is form? Explain the radio button and checkbox element of form.	
(b)	Differentiate between client side scripting and server side scripting.	
(c)	Create a HTML form to reserve a Railway ticket.	
Ques.4	Answer ANY TWO of the following questionsनिम्नलिखित प्रश्नों में से किसी दो का उत्तर दें	(5X 2=10)
(a)	What is BOOTSTRAP? Also define needs of Bootstrap in present scenario.	
(b)	What is drop down in web technology?	
(c)	What is JQuery? Describe its effects in detail.	
Ques.5	Answer ANY TWO of the following questionsनिम्नलिखित प्रश्नों में से किसी दो का उत्तर दें	(5X 2=10)
(a)	What is java script? How it make a web page dynamic?	
(b)	What is event in HTML?	
(c)	What is CSS? Define any two selectors with example.	