



- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Due credit will be given to neatness and adequate dimensions.
 10. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What is 'www'? How is it different from Internet? Which one implies the other? **4**
- b) Write HTML code to create admission form for engineering provide drop down list box to choose admission to first year or direct second year. Also have another drop down list box to choose qualifying exam. Use appropriate elements to get name and address of student. **9**

OR

2. a) Explain ordered, unordered and definition list with example. **7**
- b) What a tag is used to draw table in HTML? What are attributes that can be used with table tag. **6**
3. a) How do we add JavaScript onto a web page? Explain methods with example. **7**
- b) Write a JavaScript program to calculate factorial of a number. **7**

OR

4. a) Write a JavaScript program to sort 10 numbers in ascending and descending order. **6**
- b) Given the following code. **8**
- ```
<Script language = JavaScript type = " text / JavaScript">
for
(i = 0; i < 10; i ++){
document.write(i);
}
</script >
```
- i) What is the output?
  - ii) How would you modify the code so that it points the numbers backwards?
  - iii) How would you modify the code so that it prints only even numbers?
  - iv) How would you modify the code so that it sums all the values of i and prints the final sum.

5. a) What is DTD? Explain data types used in XML schema. 5  
b) Explain the basic structure of XML with each category in detail. 8

**OR**

6. a) Define DTD that best fulfills the following conditions Information for a multiple number of products coded within in one XML document. Character data can be coded for product names (element name: product). The product number must have a single, unique name (attribute name: Parts no), and is verified as Singular and unique by the XML parser. Characters such as # and @ must not be used in price information (attribute name: price). The default value for price (attribute name: Price) is "Open". The "Product" element must have a defined "Parts no" attribute. 6  
b) What is Extensible markup language (XML)? What is difference in HTML and XML? 7

7. a) What is servlet? Explain servlet life cycle, with appropriate example to demonstrate each stage. 14

**OR**

8. a) What do you mean by server and client? 4  
b) What do you mean by environment parameters? How are they accessed? 5  
c) Explain difference between session and cookie. 5  
9. a) What is need of JSP? Explain JSP life cycle in detail. 10  
b) Explain JSP exceptions. 3

**OR**

10. a) Explain all implicit JSP objects and their scopes. With syntax. 10  
b) Explain elements in JSP page in short. 3  
11. a) Explain android application components in detail. 7  
b) Explain android key classes OnClickListener, TextView and EditText with example code. 6

**OR**

12. a) Explain the purpose of AndroidManifest. XML. 6  
b) Outline the steps that an app goes through, before it is ready for installation. 7

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