

For Office use	Space for Digital Data
----------------	------------------------

தமிழ் நாடு அரசு
தொழில்நுட்பக் கல்வித் துறை, சென்னை 600 025 - வாரியத் தேர்வுகள்
அடுத்தப் பக்கத்தில் கொடுக்கப்பட்டுள்ள குறிப்புகளை படிக்கவும் (Read the instructions given in the next page)

Q. No.	A	B	C	Q. No.	A	B	C	Q. No.	A	B	C	Q. No.	A	B	C
1.				9.				17.				25.			
2.				10.				18.				26.			
3.				11.				19.				27.			
4.				12.				20.				28.			
5.				13.				21.				29.			
6.				14.				22.				30.			
7.				15.				23.				31.			
8.				16.				24.				Total Marks			

For Revaluation

Q. No.	A	B	C	Q. No.	A	B	C	Q. No.	A	B	C	Q. No.	A	B	C
1.	1			9.	1			17.				25.			
2.	1			10.	1			18.				26.			
3.	1			11.	10			19.				27.			
4.	1			12.		10		20.				28.			
5.	1			13.		10		21.				29.			
6.	1			14.		10		22.				30.			
7.	1			15.		10		23.							
8.	1			16.				24.							

Question Paper Code No.

வினாத்தாள் க்கு குறியீட்டு எண்

1 7 7 6

No. of Page

எழுதப்பட்ட பக்கங்களின் எண்ணிக்கை

Date of Examination :

தேர்வு நாள்

16-11-2024

Subject Name :

படத்தின் பெயர்

Component Based Technology



591-1776-23506293

60

30

Perforations to tear fly slip

* Net framework Architecture Contains Three Steps - They are

* Net Framework language

* Net Framework class library

* (CLR) Common language Runtime

தேர்வாளர்களுக்கான அறிவுரைகள்
INSTRUCTIONS TO CANDIDATES

1. விடைத்தாள் மாற்றிப் பெறுவதற்கு.

Get the answer book replaced, if

- விடைத்தாள் சரியாக சேர்ந்து பின் செய்யப்படாமல் இருந்தால்.
- it is not stapled properly
- விடைத்தாள் புத்தகப் பக்கங்களின் வரிசை எண் விடுபட்டிருந்தாலோ அல்லது வரிசையாக இல்லாமலிருந்தாலோ (மொத்தம் 30 பக்கங்கள்).
- the page numbers are missing or not in order (there shall be 30 pages continuously numbered)
- தலைப்பு பக்கத்தில் விடைத்தாள் புத்தகத்தின் கீழ்பகுதியில் வரிசை எண் அச்சிடப்படாமலிருந்தால்.
- the serial number of the answer book is not printed at the bottom of the title page

2. உங்களுடைய பதிவு எண்ணையும், பெயரையும் அதற்காக கொடுக்கப்பட்டுள்ள தலைப்பு பக்கத்தின் கீழ்பகுதியில் மட்டும் எழுதவும்; அதைத் தவிர்த்து பதிவு எண், பெயர் ஆகியவற்றை விடைத்தாளில் மற்றப் பக்கங்களில் எழுதக்கூடாது. எந்தவிதமான அடையாளக் குறியீட்டையும் விடைத்தாளில் எழுதக்கூடாது.

You are prohibited from writing your REGISTER NUMBER or NAME in any part of the answer book, other than the space provided at the bottom of the title page. You are prohibited from writing or leaving any distinguishing marks so as to identify your answer book.

3. தலைப்புப் பக்கத்தில் கொடுக்கப்பட்டுள்ள அதற்குரிய கட்டங்களில் விவரங்களை எழுதவும்.

Fill up all the particulars, in the relevant boxes, in the title page.

4. கேள்விகளுக்கு பதில் எழுதும் போது விடைத்தாளில் இரண்டு பக்கங்களையும் பயன்படுத்த வேண்டும். பக்கங்களில் தொடர்ந்து விடை எழுதாமல் வெற்றிடம் விடக் கூடாது.

Use both sides of the paper for answering questions, without leaving spaces/ lines in between.

5. இந்த விடைத்தாள் புத்தகம் போதுமான பக்கங்களை கொண்டிருக்கிறது. இதைத் தவிர கூடுதல் விடைத்தாள் அளிக்கப்படமாட்டாது.

This answer book contains sufficient pages and no additional sheets will be issued.

6. கேள்விக்கு விடையளிக்கும் முன்பு வினாத்தாள் எண், வருடம், மாதம், காலம் இவைகளை சரிபார்க்கவும்.

Check the Code Number, Month and year of Examination, Duration etc., in the question paper before answering the questions.

7. கொடுக்கப்பட்டுள்ள வரைப்படத்தாள் / கிராப் ஷீட் தவிர வேறு எந்த விடைத்தாளையும் சேர்க்க கூடாது. விடைத்தாள் புத்தகத்திலிருந்து எந்த பக்கத்தையும் கிழிக்கக் கூடாது.

No extra sheet is to be attached except the drawing/graph sheets supplied and no sheet is to be teared from the answer book.

8. கைபேசி, துண்டுக் காகிதம் மற்றும் தடை செய்யப்பட்ட இதர பொருட்கள் வைத்திருத்தல், தேர்வுக்கு எதிரான முறைகேடுகளில் ஈடுபடுதல் அனைத்தும் தேர்வு வாரிய விதிகளின்படி தண்டனைக்குரிய குற்றமாகும்.

POSSESSION OF ANY PROHIBITED MATERIAL, CELL PHONE, BITS OF PAPERS, etc., AND INVOLVEMENT IN MALPRACTICE OF ANY NATURE SHALL BE PUNISHABLE AS PER BOARD'S RULES.



Part - B

iii)

a.) .Net Framework Architecture

VB.Net

C#

JScript

VC++ .Net

windows
form

web form

web form

.Net Framework class library

Common Language Runtime

* .Net framework Architecture Contains
Three Steps - They are

* .Net Framework language

* .Net Framework class library

* (CLR) Common Language Runtime



i) .Net languages

* In Visual Studio .Net frameworks consists of many languages. In this C# is main & common language we use.

* The other languages are V.B.Net, JScript, VC++.Net.

* These languages are used to create And windows Application.

* These language are used to create An windows Form & web form.

* most of the windows & web are written by C# language.

ii) .Net framework Class Library.

* Library is collection many data.



* In .Net framework library consists of ~~pre~~ predefined Data model

* by using these model user can create a ~~web~~ web form & windows form according to the need of the user.

* There are also may be module to create a web form, according to the user needs.

* It has two class library
i) base class :

* base class - Consists of many data but only for windows Form design

ii) frame work class library :

* In this many of the class's are used by the user

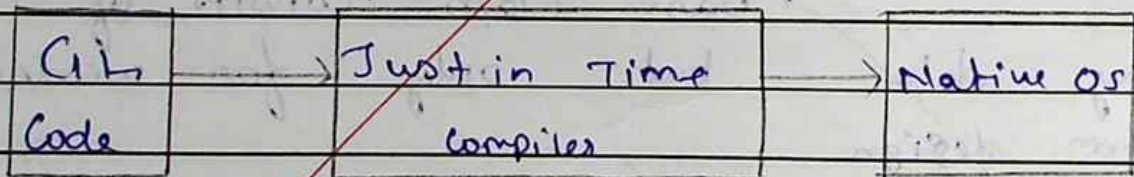
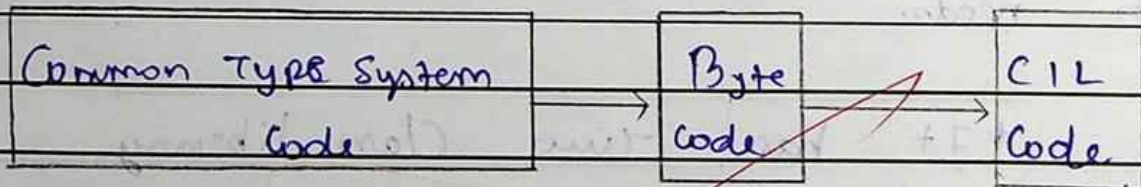


* It consists of pre-defined program & design.

* Those pre-defined can be modified according to the user needs, and user can use it.

iii) Common Language Run Time (CLR) :

* .Net





* It supports all the language. The processing is called Common Type System.

* After the process the program can be converted into byte code.

* byte code is called as CIL code.

* with the help of CIL code we can adapt it to every os.

* By using (JIT) compiler Just in Time the CIL code can be run on any Native os.

* This is known as .Net framework Architecture.



12) b) Show () : Dialog box()

* It is method derived from Dialog box

* Dialog consists Two method

* Show()

* Show Dialog()

i) Show !: (on) Show Dialog

* Show () is a method which is modelless

* If it is in modelless state

* The user can used to display the output by this

* when an process is running A new process can start without cancelling or stopping another process

* If the another process get over we can start a new process



By the same way.

ii) Show Dialog F() ! (or) Show()

* If it is in model full state

* This method is used to print or display the output

* This is not like show() method

* If any process is running we need to cancel it or wait until another process is finished

* If the running process is finished

* we can start a new process



Dialog box():

* It is a statement used to display an output as a Dialog()

* It has two model & mode.

* They are

i) Show Dialog()

ii) Show()

Differentiation !:

Show Dialog()	Show()
* It is model full state	* It is a modelless state
* we can't run an application because any application is running previously	* It can run a New application also It is process another Application



* After that only
we can run a new
Applications

It can handle
both the Application
Process
at the time

* There are the Sub
model of
Dialog box

This is the sub
model of dialog
box

(114) ③ ASP.Net Life Cycle:

* It is the method how to
use an ASP.Net web Application

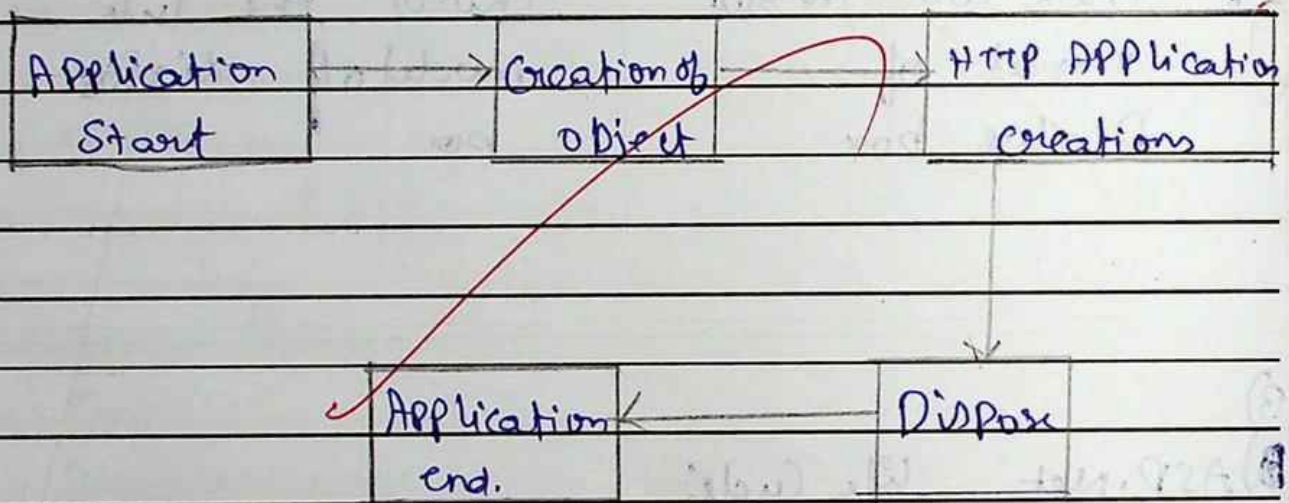
* There are Two methods
of ASP.Net life cycles They are

- * Application life cycle
- * Page life cycle.



i) Application life cycle:

These are some of the Application that are used to Run the ASP.NET They are !



i) Application Start:

when an user start a new page of the web Browser an process takes place is called as Application Start.



ii) Creating Object

during this project http request, http response, http context are the objects are created.

iii) HTTP Application creation:

When an user request a data on web browser http key word is used to create that data searched

iv) Dispose

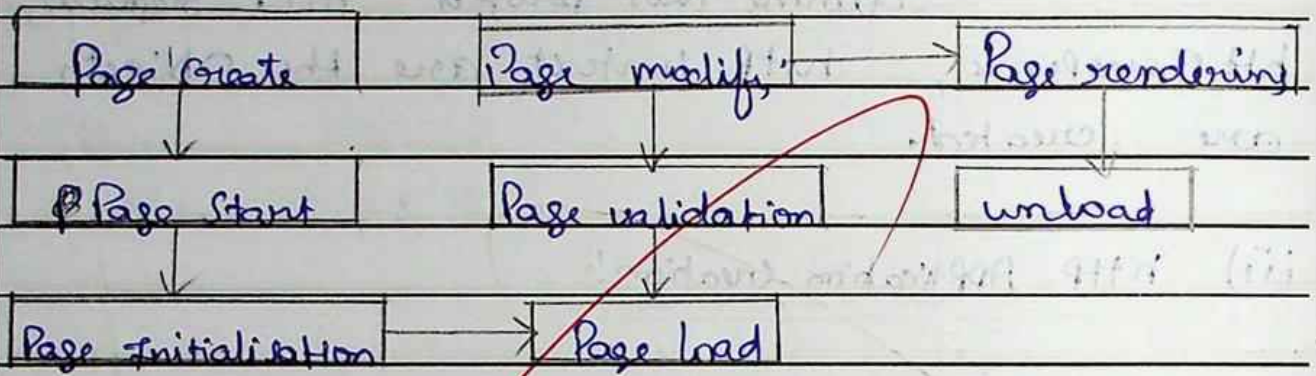
After every process deleting the Application and Free up the memory space.

v) Application end:

* After every process the Application will be closed this is known as Application end.



ii) Page life cycle



i) Page Create :

used to create an empty Page

ii) Page Start :

After creating a new Page, click on Page start. Page will processing

iii) Page initialisation :

After starting a Page giving an initial value to the page



iv) Page Load:

* After Initialising a Value
Refresh the created page

* this method is used as Page Load

v) Page Validation:

* After Page Load a created page will go to page validation for validating it

vi) Page modify:

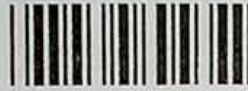
* used to change or modify the value present inside page

vii) Page rendering:

Rendering a page value to another or getting back a given value is call Rendering

viii) Unload:

unload all the memory



Stored on Process during
this Page life cycle Can be deleted
on removed

* This known as Page unload.

15) B.) SOAP Fundamentals.

SOAP is a Protocol
Based Content

* SOAP means Simple Object
Access Protocol.

* By this method we can
request any data from web
Browser.

* This is simple & easy to
understand how it is working



* This is similar to http & xml protocol.

* There are five Fundamentals of SOAP They are.

- * HTTP request
- * Simplicity
- * Extensibility
- * message passing
- * Application

i) HTTP request:

we can request or data same as using as http request

ii) Simplicity:

using this we can simple to request & data

iii) Extensible:

Adapts to All the language.
& Request



There are some of the methods used in SOAP

Syntax:

```
<xml version = "1.0">  
< SOAP : envelop = " Pathway of the file ">  
  < SOAP: encoding Font = " Pathway of file ">  
    < SOAP: header >  
      </ soap : header >  
      < soap: body >  
        < soap: fault > </ soap : fault >  
      </ soap : body >  
    </ soap : envelop >
```




* There are four methods used in

SOAP They are:

i) Envelope:

It is the place where user decided actual data to be printed or displayed as output

ii) Encoding:

Font to be displayed

iii) header

Header of the userdefined process

iv) body:

It is the place where actual message will be printed.

v) Fault: Sub heading of an header.

ex:

< xml version = "1.0" >

< Soap: envelope = "C:/Data/output" >

< Soap: header >



File to displayed

</soap: header>

<soap: body>

default element = "Path way"

</soap: body>

</soap: envelope>

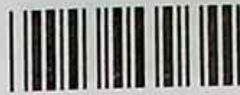
13)

b) Stored Procedure :-

* the backend Database which is stored a data of the process which done by the user.

* when a Data is stored in the database.

* by using stored procedure we can retrieve the needed data.



Creating a Stored Procedure:-

1.) open ms visual studio.
window Application, click on server tool

2.) Server tool → click on
Database ~~click~~

3.) After that change the
Database Property as Stored procedure

4.) click on stored procedure.

5.) An stored procedure is created.

Syntax of Stored Procedure:-

This step is used to create
an stored procedure.



Syntax

84 Create Stored procedure dbo. Stored procedure

/*

default value 1

default value 2

default value

/*

AS

"Data base name: Command"

(7) AS Keyword is used to retrieve
A Stored table in an given Database
name

8.) There is a method used to
retrieve a database of need table



of content to be displayed.

ex:

Create ~~Store~~ Store procedure - IS student
1/4

✓ default value 1 = "name"
default value 2 = "mark"

As

Polytechnic College = 'Select * from ~~table~~
Student

O/P

name mark
Raj 90
Ravi 98



Part-A

① uses of .Net framework

* used to create a window Application

* used to create a web Application

* used to create a form using
tool box, Advanced Control box

* used to Run the created Application
on web Browser.

⑤ Data Set:

* It is temporary Storage Area

* The data's stored here are
taken from the Data base with the
help of Data Adapter.

* IF the Connection is Disposed
the user can take the Data



from Date set

* The Stored data From the Database will not be vanished or disappeared.

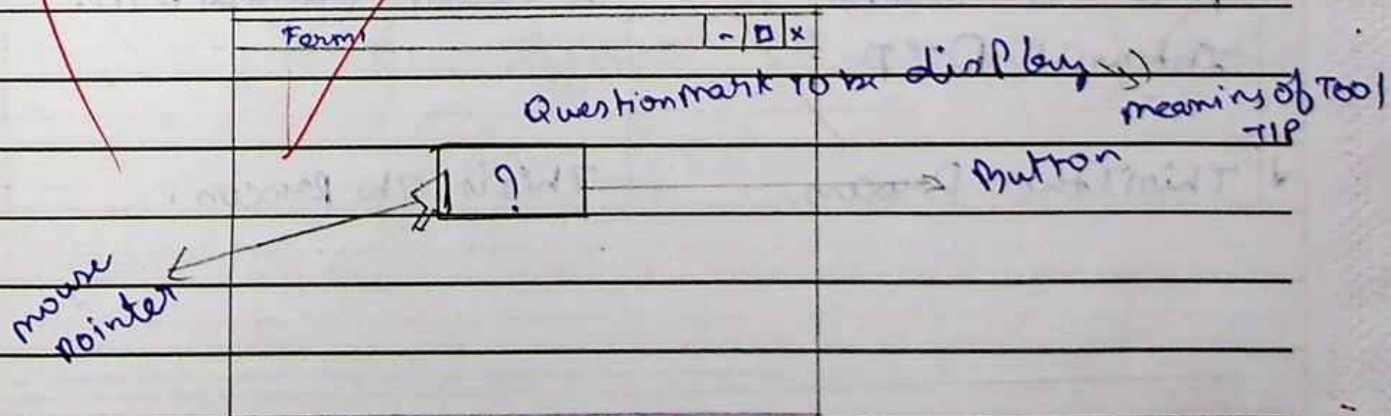
④

Tool Tip:

* It is the method which is used to identify the Purpose of unknown object

* used to find the meaning of unknown object

* when the mouse pointer placed on the above unknown object It shows the meaning of it.





⑥

data reader

Data Set

* It creates a bridge between Database and Data Set

Stores a data which is taken from Database

* used to Read & display the Data

If the user needs it it will send it to the user.

* If the user requests the data it will display it

⑨

DTP Internal

External DTP

* Document Type Definition

* Document Type Definition

* If the Document is Defined inside the DTP is called Internal DTP

If the Document is Defined outside the DTP is called External DTP.

↓ This is the Process

This is The Process.



(10)

Simple SOAP

* Simple Object Access Protocol

* SOAP is an web Based Protocol.

* This is similar to http Protocol.

(3)

Window form:

* used to create a form

* The need of the user can be created and shown diagrammatically according to the user.

* It supports C#, JScript, VB.Net

* These are the uses of window form



① * There are many HTML Control which are used as an Protocol to search for an needed Resource to the user

* They are

* HTTP Protocol

* SOAP

* XML Protocol.

* MQTT Protocol.

② Object :-

* It is the Collection of ~~class~~ and data, methods.

* data are stored and stored inside the object

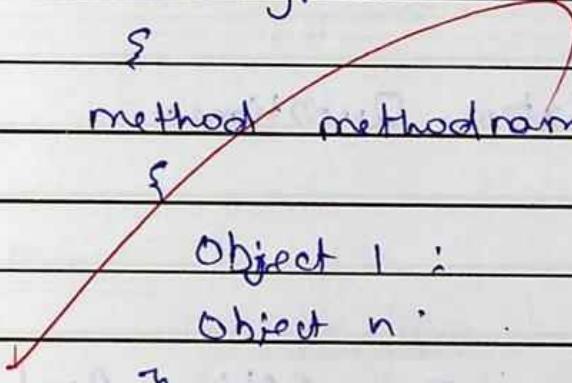
* object are stored inside the class.



Syntax

```
class classname
{
    datatype - 1
    .....
    datatype - n
    {
        method (methodname (args))
    }
}

Object 1 :
Object n :
```



(8)

web API

- * It is an web Based Application
- * we can Run them api in any web Browser



* It works and Run on Internet

* It is created According to the user module

* This is known as web API

Extra Questions

12) q(i) event !

* when an action performed on the system is called event

* there are two types of event
They are

i) click event

When a key or mouse is clicked It said to be click event



ii) load event:

* When an process is running or waiting for a memory space is to be given

* After that the memory space is given we will refresh all the process at that time. It will load

* This is known as load event

mouse events:

* mouse up - when an mouse pointer is moved up is said to mouse up

* mouse down - when an mouse pointer is pressed down it said to mouse down.

* mouse clicked - when an mouse is clicked whether the left or right key is clicked It said to mouse click event



12) a) ii) Context menu

1.) Open msvisual studio.
click on menu

2) menu → click on context menu

3) or Drag it to the created Form.

* After that Change the text property as context menu 1.

* Use Place the cursor to the menu to Type the Date. The Dates are

* Print

* Save as

* hide

* After creating it Run the Application.

Form 1		-	□	x
Save AS				
Print				
hide				