

एम4.1-आर4: एप्लीकेशन ऑफ डॉट नेट टेक्नोलॉजी
M4.1-R4: APPLICATION OF .NET TECHNOLOGY

अवधि: 03 घंटे
DURATION: 03 Hours

अधिकतम अंक: 100
MAXIMUM MARKS: 100

ओएमआर शीट सं.: OMR Sheet No.:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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रोल नं.:

उत्तर-पुस्तिका सं.:
Answer Sheet No.:

परीक्षार्थी का नाम:
Name of Candidate: _____; **Signature of candidate:** _____

परीक्षार्थियों के लिए निर्देश:

Instructions for Candidate:

क्रपया प्रश्न-पुस्तिका, ओएमआर शीट एवं उत्तर-पुस्तिका में दिये गए निर्देशों को ध्यान पूर्वक पढ़ें।	Carefully read the instructions given on Question Paper, OMR Sheet and Answer Sheet.
प्रश्न-पुस्तिका की भाषा हिन्दी एवं अंग्रेजी में है। परीक्षार्थी किसी भी एक भाषा का चयन कर सकता है। (अर्थात्, या तो हिन्दी या अंग्रेजी)	Question Paper is in Hindi and English language. Candidate can choose to answer in any one of the language (i.e., either Hindi or English)
इस मॉड्यूल/पेपर के दो भाग हैं। भाग एक में चार प्रश्न और भाग दो में पाँच प्रश्न हैं।	There are TWO PARTS in this Module/Paper. PART ONE contains FOUR questions and PART TWO contains FIVE questions.
भाग एक "वैकल्पिक" प्रकार का है जिसके कुल अंक 40 है तथा भाग दो, "व्यक्तिप्रक" प्रकार है और इसके कुल अंक 60 है।	PART ONE is Objective type and carries 40 Marks. PART TWO is subjective type and carries 60 Marks.
भाग एक के उत्तर, इस प्रश्न-पत्र के साथ दी गई ओएमआर उत्तर-पुस्तिका पर, उसमें दिये गए अनुदेशों के अनुसार ही दिये जाने हैं। भाग दो की उत्तर-पुस्तिका में भाग एक के उत्तर नहीं दिये जाने चाहिए।	PART ONE is to be answered in the OMR ANSWER SHEET only, supplied with the question paper, as per the instructions contained therein. PART ONE is NOT to be answered in the answer book for PART TWO .
भाग एक के लिए अधिकतम समय सीमा एक घण्टा निर्धारित की गई है। भाग दो की उत्तर-पुस्तिका, भाग एक की उत्तर-पुस्तिका जमा कराने के पश्चात दी जाएगी। तथापि, निर्धारित एक घंटे से पहले भाग एक पूरा करने वाले परीक्षार्थी भाग एक की उत्तर-पुस्तिका निरीक्षक को सौंपने के तुरंत बाद, भाग दो की उत्तर-पुस्तिका ले सकते हैं।	Maximum time allotted for PART ONE is ONE HOUR . Answer book for PART TWO will be supplied at the table when the answer sheet for PART ONE is returned. However, candidates who complete PART ONE earlier than one hour, can collect the answer book for PART TWO immediately after handing over the answer sheet for PART ONE .
परीक्षार्थी, उपस्थिति-पत्रिका पर हस्ताक्षर किए बिना अथवा अपनी उत्तर-पुस्तिका, निरीक्षक को सौंपे बिना, परीक्षा हाल नहीं छोड़ सकता हैं। ऐसा नहीं करने पर, परीक्षार्थी को इस मॉड्यूल/पेपर में अयोग्य घोषित कर दिया जाएगा।	Candidate cannot leave the examination hall/room without signing on the attendance sheet or handing over his Answer sheet to the invigilator. Failing in doing so, will amount to disqualification of Candidate in this Module/Paper.
प्रश्न-पुस्तिका को खोलने के निर्देश मिलने के पश्चात एवं उत्तर देने से पहले उम्मीदवार यह जाँच कर यह सुनिश्चित कर ले कि प्रश्न-पुस्तिका प्रत्येक दृष्टि से संपूर्ण है।	After receiving the instruction to open the booklet and before answering the questions, the candidate should ensure that the Question booklet is complete in all respect.

नोट: यदि हिन्दी संस्करण में कोई त्रुटि / विसंगति पाई जाती है, तो उस अवस्था में अंग्रेजी संस्करण ही मान्य होगा।

Note: In case of any discrepancy found in Hindi language, English version will be treated as final.

जब तक आपसे कहा न जाए तब तक प्रश्न-पुस्तिका न खोलें।

DO NOT OPEN THE QUESTION BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Hkkx ,d / PART ONE

¼IHkh iz'uksa ds mÙkj nsa½ / (Answer all the questions)

1. izR;sd iz'u ds mÙkjksa ds dbZ fodYi uhps fn, x, gSaA ,d lcls mi;qDr fodYi pqusa vkSj mls fuEufyf[kr funsZ'kksa ds vuqlkj iz'u i= ds lkFk miyC/k djk, x, ^^vks,evkj** mÙkj

i=d esa ntZ djsaA

Each question below gives a multiple choice of answers. Choose the most appropriate one and enter in the "OMR" answer sheet supplied with the question paper, following instructions therein.

(1x10)

- 1.1 Web.config Qkby dk mi;ksx ____ fd;k tkkrk gSA

- A) ,lyhds'ku esa oSf'od lwpuk vkSj pj ifjHkk"kk,a LVksj djus ds fy,
B) osc loZj dafQxj djus ds fy,
C) osc czkmtj dafQxj djus ds fy,
D) ;g dafQxj djus ds fy, fd fdl le; foU;Lr djus ij loZj lkbM dksM fcgkbaM ekWM~;wy dks d,y djus ds fy,

- Web.config file is used ...
A) To store the global information and variable definitions for the application
B) To configure the web server
C) To configure the web browser
D) To configure the time that the server-side code-behind module is called

- 1.2 fuEufyf[kr esa ls fdl i)fr dks ,d dLVe fu;a=.k esa vksojfjMu fd;k tkuk vko';d gS \ / Which of the following method must be overridden in a custom control?

- A) The Paint() method
B) The Control_Build() method
C) The default constructor
D) The Render() method

- 1.3 dkSu lh Dykl] ASP.NET osc Q,eZ Dykl dks fMQ,YV :i ls bUgsfjV djrh gS \ / What class does the ASP.NET Web Form class inherit from by default?

- A) System.Web.UI.Page

- B) System.Web.UI.Form
C) System.Web.GUI.Page
D) System.Web.Form

- 1.4 fuEufyf[kr esa dkSu lk .NET ij in Øekuqlkj dk ewy gSA / Which of the following is the root of the .NET type hierarchy?

- A) System.Base
B) System.Type
C) System.Object
D) System.Parent

- 1.5 IIS esa fdl Mh,y,y dk XML ls SQL dk vuqokn fd;k tkkrk gS\ / Which DLL translate XML to SQL in IIS?

- A) SQLXML.dll
B) SQLISAPI.dll
C) LISXML.dll
D) SQLIIS.dll

- 1.6 ASP.NET esa ----- esa fMQkWYV ls'ku MsVk laxzfgr gksrk gS / Default Session data is stored in ASP.NET.

- A) State Server
B) Session Object
C) In Process
D) All of the above

- 1.7 fuEu esa ls dkSu lk ASP.NET xzkgdksa dh fLFkfr ds vkWCtsDV laiqfVr djrk gS\ / Which of the following ASP.NET object encapsulates the state of the client?

- A) Session object
B) Application object
C) Response object
D) Server object

- 1.8 Base class ftlesa ls IHkh osc Q,eZ dks bUgsfjV fd;k tkkrk gS \ / What is the base class from which all Web forms inherit?

- A) Master Page
B) Page Class
C) Session Class
D) None of the Above

- 1.9 ,d flaxy .NET DLL fdrus Dyklst dks 'kkfey dj ldrk gS\

- A) ,d
B) nks

C)	dksbZ ugha	2.10	wSDL dk iw.kZ :i osc loZj fMfLØI'ku ySaXost gksrk gSA
D)	cgqr ls		
	How many classes can a single .NET DLL contain?		
A)	One		
B)	Two		
C)	None		
D)	Many		
1.10	Global.asax dk iz;ksx D;ksa fd;k tkRK gS\ / Why is Global.asax used?		
A)	Implement application and session level events		
B)	Declare Global variables		
C)	No use		
D)	Both A) & B) above		

2- uhps fn, x, izR;sd fooj.k ;k rks IR; ;k vIR; gSA ,d lcls mi;qDr fodYi pqusA vkSj mls fuEufyf[kr funsZ'kksa ds vuqlkj iz'u i=d ds lkFk miyC/k djk, x, ^^vks, evkj mÙkj i=d esa ntZ djsaA (1x10)**

- 2.1 fMQkWYV :i ls] ASP.NET dqdht esa SessionIDs LVksj djrk gSA
- 2.2 vkWQykbu eksM esa osc ,lyhds'ku Qkby appoffline.html ls ysrk gSA
- 2.3 View state dsoy serializable vkWCtsDV dks LVksj dj ldrs gSaA
- 2.4 'kq#vkr ls ,d XML MkWD;wesaV cukus ds fy, xmlNew Dykl dk iz;ksx fd;k tk ldrk gSA
- 2.5 D;k iksLVcSd System.UI.Web.Page class dk ,d esFkM gSA
- 2.6 .ascx ,d osc ;wtj daVaksy Qkby dk foLrkj gSA
- 2.7 ,d fILVe esa ,d ls vf/kd machine.config Qkby gks ldrh gSA
- 2.8 ASP+ vkSj ASP.NET ,d gh pht gSaA
- 2.9 ASP esa fMQkWYV fLØflVax ySaXost JavaScript gSA

2. Each statement below is either TRUE or FALSE. Choose the most appropriate one and enter your choice in the "OMR" answer sheet supplied with the question paper, following instructions therein. (1x10)

- 2.1 By default, ASP.NET store SessionIDs in cookies.
- 2.2 appoffline.html files take the web application in offline mode.
- 2.3 View state can store only serializable objects.
- 2.4 XmlNew class can be used to create an XML document from scratch.
- 2.5 Is PostBack is a method of System.UI.Web.Page class.
- 2.6 .ascx is the extension of a web user control file.
- 2.7 There can be more than one machine.config file in a system.
- 2.8 ASP+ and ASP.NET refer to the same thing.
- 2.9 JavaScript is the default scripting language in ASP.
- 2.10 WSDL stands for Web Server Description Language.

- 3- dkWye x esa fn, x, 'kCnksa vkSj okD;ksa dk feyku dkWye y esa fn, x, fudVre lacaf/kr vFkZ @ 'kCnksa @ okD;ksa ls djsaA muesa fn, x, vuqns'kksa dk ikyu djrs gq, vius fodYi iz'u i= ds lkFk fn, x, ^vks, evkj** mÙkj i=d esa ntZ djsaA
- 1/41x10½

X		Y	
3.1	og rduhd tks vU; e'khuksa ij ,oa vU; izfØ;kvksa esa .usV ,lyhds'ku esa QaD'ku d,y djus ds fy, vuqefr iznku djrk gSA	A.	osc QkWEIZ
3.2	ekbØkslkWTV -usV ÝseodZ ds Hkhrj useLisl gS tks VªkalD'ku çkslsflax ykxw djus dh lqfo/kk iznku djrk gSA	B.	ls'ku vkWCtsDV~I
3.3	,,lih-usV esa bldk mi;ksx djrs gq, ls'ku gVk;k tk ldrk gSA	C.	fjLVe - baVjizkbts+t+ lfoZlst+
3.4	iksLVcSd fdl izdkj ds QkeksZ esa gksrk gS \	D.	fjysD'ku ijfe'ku
3.5	,d vlsacyh esVkMkVk ds fy, mi;ksx dh vuqefr nsrk gSA	E.	fjihVj
3.6	Vkbi izkslsflax ekWMY tks ASP.NET }kjk fleqysV fd;k tkrk gS	F.	.NET Threading
3.7	daVªksy ftlesa dksbz foftcy baVjQsl ugha gsS	G.	Event-driven
3.8	buesa ls dkSu lk MsVk lkslZ daVªksy dSf'kax dk dk;kZUo;u ugha djrk \	H.	Top-down
3.9	vkbZvkbZ,l dk fMQkWYV izek.khdj.k eksM gSA	I.	Session.Abandon
3.10	ls'ku vkWCtsDV dh dkSu lh izkWiVhZ gS tks yksdy vkbMsaVhQk;j lsV djus esa mi;ksx dh tkrh gS\	J.	,uksuhel
		K.	,ylhvkbZMh
		L.	Linq
		M.	,pVh,e,y QkWEIZ

- 4- uhps fn, x, izR;sd okD; esa uhps nh xbZ lwph ls ,d 'kCn ;k okD; dks [kkyh LFkku esa yxk,aA lcls mi;qDr fodYi pqusa vkSj mls fuEufyf[kr vuqns'kksa ds vuqlkj iz'u i= ds lkFk fn, x, ^vks, evkj** mÙkj i=d esa viuk fodYi ntZ djsaA
- 1/41x10½

A.	Lkh,yvkj	B.	fjysD'ku	C.	Garbage Collection
D.	Current Culture	E.	Page.User.Identity	F.	Tkh,lh

G.	Serialization	H.	<identity>	I.	DykbaV&IkbM dksM
J.	baVhxz'ku	K.	FkzsfMax	L.	IoZj&IkbM dksM
M.	;wfuV				

- 4.1 web.config file esa ----- rRo ,d fo'ks"k iz;ksDrk dh vuqefr ysdj dksM ju djrk gSA
- 4.2 ..----- foaMks QksYMj esa ,d fo'ks"k IcQksYMj tks 'ks;MZs .NET component dks LVksj djrk gSA
- 4.3 ----- izksiVhZ .Net Framework esa MsV~l] djaslh] lkWfVZax vkSj QkWesZfVax b'kw dks izHkkfor djrk gSA
- 4.4 ----- ijh{k.k lqfuf'pr djrk gS fd u;k dksM ekStwnk dksM dks czsd ugha djrk gSA
- 4.5 .NET Framework ,d juVkbbe ,aok;uZesaV iznku djrk gS ftldks ----- dgk tkrk gSA
- 4.6 QkWeZ ist esa ASP.NET esa ----- vkWCtsDV gksrk gS ftlesa ;wtj use 'kkfey jgrk gSA
- 4.7 .NET framework ,d rduhdh dk mi;ksx dj vkWVksesfVd eseksjh eSustesaV iznku djrk gS ftls ----- dgk tkrk gSA
- 4.8 In.NET esVkMsVk i<+us vkSj mlds daVsaV dk mi;ksx djus ds vkWijs'ku dks ----- ds :i esa tkuk tkrk gSA
- 4.9 dksM&fcgkbaM Dykl esa ik, x, dksM ds izdkj ----- gSSA
- 4.10 eku yhft, ,d .NET programmer ckbV~l ds ,d LV^he esa ,d vkWCtsDV dks daoVZ djuk pkgrs gSa rks fQj bl izfØ;k dks ----- dgrs gSaA

- 3. Match words and phrases in column X with the closest related meaning/ word(s)/phrase(s) in column Y. Enter your selection in the “OMR” answer sheet supplied with the question paper, following instructions therein. (1x10)**

X	Y
3.1 The technique that allow code to make function calls to .NET applications on other processes and on other machines is	A. Web Forms
3.2 The namespace within the Microsoft .NET framework which provides the functionality to implement transaction processing is	B. Session Object
3.3 In ASP.NET the sessions can be dumped by using	C. System.Enterprise Services
3.4 Postback occurs in which of type of forms?	D. Reflection Permission
3.5 Allows access to an assembly's metadata	E. Repeater
3.6 The type Processing model that ASP.NET simulates is	F. .NET Threading
3.7 The control which does not have any visible interface is	G. Event-driven
3.8 Which of these data source controls do not implement Caching?	H. Top-down
3.9 Default Authentication mode of IIS is	I. Session.Abandon
3.10 Which property of the session object is used to set the local identifier?	J. Anonymous
	K. LCID
	L. Linq
	M. HTML Forms

- 4. Each statement below has a blank space to fit one of the word(s) or phrase(s) in the list below. Choose the most appropriate option, enter your choice in the “OMR” answer sheet supplied with the question paper, following instructions therein. (1x10)**

A.	CLR	B.	Reflection	C.	Garbage Collection
D.	CurrentCulture	E.	Page.User.Identity	F.	GAC
G.	Serialization	H.	<identity>	I.	Client-side code
J.	Integration	K.	Threading	L.	Server-side code
M.	Unit				

- 4.1 _____ element in the web.config file to run code using the permissions of a specific user.
- 4.2 _____ is a special subfolder within the windows folder that stores the shared .NET component.
- 4.3 The _____ property affects how the .Net Framework handles dates, currencies, sorting and formatting issues.
- 4.4 _____ tests make sure that new code does not break existing code.
- 4.5 The .NET Framework provides a runtime environment called _____.
- 4.6 In ASP.NET in form page the object which contains the user name is _____.
- 4.7 The .NET framework which provides automatic memory management using a technique called _____.
- 4.8 In .NET the operation of reading metadata and using its contents is known as _____.
- 4.9 The type of code found in Code-Behind class is _____.
- 4.10 Suppose a .NET programmer wants to convert an object into a stream of bytes then the process is called _____.

Hkkx nks / PART TWO

1/4fdUgha pkj iz'uksa dk mÙkj nsa^{1/2}(Answer any FOUR questions)

5.

a) .NET framework dh okLrq lajpuk dks le>k,a \

b) .NET esa sequential lists, queue class vkSj stack class ij izdk'k MkysaA

c) vki FkzsM iqy ls D;k le>rs gSa\ ge .NET esa FkzsM dh izkFkfdrk,a dSls lsV dj ldrs gS\

a) Explain architecture of .NET framework?

b) Elaborate sequential lists, queue class, and stack class in .NET.

c) What do you understand by Thread Pool? How do we set thread priorities in .NET?

(7+4+4)

6.

a) ckWfDlax dks le>k,a vkSj D;ksa bls cpuk pkfg,\

b) laxzg ds uke vkSj fofHkUu izdkjks dks le>k,aA tsusfjd laxzg D;k gS \

c) ,flaØksul izksxzkfeax e,My dks le>k,aA Vkb ej Dykl dk iz;ksx D;k gS\

a) Explain boxing and why it should be avoided?

b) Name and explain different types of collections. What are generic collections?

c) Explain the asynchronous programming model. What is the use of Timer class?

(5+5+5)

7.

a) C# esa fjtysD'ku dks le>k,aA

b) ,d usVodZ ij ,d Qkby dks VªkalQj djus ds fy, C# esas ,d izksxze fy[ksaA

c) ,d vlsacyh ds fy, otZu] dYpj vkSj ifCyd dh Vksdu & egRo

vkSj izR;sd ds mi;ksx dks le>k,aA

Explain reflection in C#.

b) Write a program in C# to transfer a file on a network.

c) Explain the importance and use of each - Version, Culture and Public Key Token for an assembly.

(5+7+3)

8.

Dyksuscy] dEisjscy vkWCtsDV~I dk fuekZ.k dSls

djsa\ mnkgj.k ds lkFk le>k,aA

.NET esa forfjr ,lyhds'ku dks dSls cukrs gS le>k,a \

.NET esa fofHkUu QkbZuykbts'ku rduhdks ij ppkZ djsaA

a) How to build cloneable, comparable objects?

b) Explain with examples.

c) Explain how to create distributed applications in .NET?

c) Discuss the different finalization techniques in .NET.

(6+5+4)

9.

a) mnkgj.k ds lkFk Msyhxs'ku ekWMy dks le>k,aA

b) DLL Hell D;k gS] vkSj .NET blss dSls gy djrk gSsa\

c) Vkbi QkWjofMZax dks le>k,a\

d) LVªhe jkbVj Dykl dk o.kZu djsaA

a) Explain delegation model with example.

b) What is DLL Hell, and how does .NET solve it?

c) Explain Type Forwarding?

d) Describe the Stream Writer class.

(5+3+4+3)
