Cross Platform MAD-1 Reading Material

Questions	Option1	Option2	Option3	Option4	Answer
What is cross-platform mobile application development?	Developing apps for only Android	Developing apps for only iOS	Developing apps that work on multiple platforms using a single codebase	Developing desktop applications	Option3
Which of the following is a key benefit of cross-platform development?	Higher development cost	Code reusability	Platform dependency	Separate teams for each platform	Option2
Which language is primarily used in React Native?	Dart	JavaScript	Kotlin	Swift	Option2
Flutter is developed by which company?	Facebook	Google	Microsoft	Apple	Option2
Which of the following is NOT a cross-platform framework?	Xamarin	Flutter	Android Studio	React Native	Option3
What is the main goal of cross-platform development?	Increase app size	Reduce development time and cost	Use multiple codebases	Focus only on iOS	Option2
Which framework uses Dart language?	React Native	Xamarin	Flutter	Ionic	Option3
Which of the following is a disadvantage of cross-platform development?	Limited access to native features	High cost	No code reusability	Platform-specific code required	Option1
Which framework is maintained by Microsoft?	Flutter	Xamarin	Ionic	React Native	Option2
Which of the following is a hybrid mobile app framework?	Ionic	Swift	Kotlin	Java	Option1
Which of these is a native development language for Android?	Swift	Kotlin	Dart	C#	Option2
Which of these is a native development language for iOS?	Swift	Java	Dart	C#	Option1

Question					
Which of the following is true about native apps?	They offer better performance	They use a single codebase	They are easier to maintain	They are cheaper to develop	Option1
Which of the following is a major challenge in cross-platform development?	High performance	Platform-specific UI consistency	Code duplication	Lack of frameworks	Option2
Which framework is best known for its hot reload feature?	Xamarin	Flutter	Ionic	React Native	Option2
What is the primary advantage of using a single codebase?	Faster development and easier maintenance	Better native performance	More complex debugging	Higher cost	Option1
Which of the following is a reason to choose native development over cross-platform?	Need for high performance and native features	Faster development	Lower cost	Code reusability	Option1
Which of these frameworks is based on web technologies like HTML, CSS, and JavaScript?	Ionic	Flutter	Xamarin	React Native	Option1
What is a common limitation of cross-platform apps?	Cannot run on Android	Delayed access to new platform features	No UI support	High development cost	Option2
Which of the following is NOT an advantage of cross-platform development?	Faster time to market	Full access to all native APIs	Reduced cost	Code reusability	Option2
Which company developed Dart?	Oracle	Microsoft	Google	Mozilla	Option3
Dart is primarily designed for:	Web & mobile apps	Embedded systems	System-level programming	Game engines	Option1
Which of the following is NOT a Dart feature?	Ahead-of-time compilation	Just-in-time compilation	Manual memory management	Garbage collection	Option3
Command to install Dart SDK on Windows:	brew install dart	apt-get install dart	choco install dart-sdk	npm install dart	Option3
Check Dart installation with:	dart --version	flutter --check	dart setup	dart run	Option1
Which environment executes Dart code?	Node.js	Dart VM	JVM	Python Interpreter	Option2

Tool to compile Dart to JavaScript:	dart-js	dartc	compile-dart	dart2js	Option4
DartPad is:	Package manager	Mobile IDE	Desktop compiler	Online editor	Option4
Dart VM supports:	Only Linux	Java-based VM	JIT & AOT	Cannot run standalone	Option3
File extension for Dart source files:	.d	.dt	.drt	dart	Option4
Package manager for Dart:	pub	npm	pip	cargo	Option1
Command to run a Dart program:	dart run filename.dart	dart filename.dart	run-dart filename	execute filename.dart	Option1
Feature that makes Dart suitable for Flutter:	Low-level hardware access	Hot reload	Manual memory management	Strong typing	Option2
NOT a Dart execution environment:	Dart VM	Python Interpreter	Flutter runtime	JavaScript via dart2js	Option2
Command to update Dart SDK (Windows):	dart update	pub upgrade	dart upgrade	choco upgrade dart-sdk	Option4
Which symbol is used to end a statement in Dart?	:	;	.	,	Option2
Which keyword is used to declare a variable in Dart?	var	let	define	declare	Option1
Which keyword declares a constant value in Dart?	const	final	static	immutable	Option1
Which keyword is used for runtime constants in Dart?	const	final	static	var	Option2
Default value of uninitialized variables in Dart is:	0	null	false	undefined	Option2
Which of the following is NOT a Dart datatype?	int	double	str	bool	Option3
Which datatype is used for true/false values?	int	bool	double	char	Option2
Which operator is used for string concatenation in Dart?	+	&	.	concat()	Option1
Which symbol is used for single-line comments in Dart?	//	--	%%	""	Option1

Which syntax is used for multi-line comments in Dart?	/* … */	/** … **/	%% … %%	""…""	Option1
Which keyword is used to define a function in Dart?	def	func	void	function	Option3
Which operator is used for equality check in Dart?	=	==	===	equals()	Option2
Which operator is used for not-equal check in Dart?	!=	<>	!==	notEqual()	Option1
Which keyword is used to import libraries in Dart?	include	import	use	require	Option2
Which keyword is used to handle exceptions in Dart?	try	catch	throw	finally	Option1
Which keyword is used for conditional branching in Dart?	switch	if	case	loop	Option2
Which keyword is used to provide an alternative branch in Dart?	else	elseif	otherwise	default	Option1
Which keyword is used for multiple conditions in Dart?	elseif	else if	elif	alternate	Option2
Which keyword is used for looping in Dart?	repeat	loop	for	iterate	Option3
Which loop is best when the number of iterations is unknown?	for	while	do-while	foreach	Option2
Which loop executes at least once regardless of condition?	for	while	do-while	foreach	Option3
Which keyword is used to exit a loop prematurely?	stop	break	exit	end	Option2
Which keyword skips the current iteration in Dart?	skip	continue	next	pass	Option2
Which statement is used for multiple branch selection?	if-else	switch	case	choose	Option2
Which keyword is used inside switch for branch handling?	case	option	branch	select	Option1

Which keyword is used to handle unmatched cases in switch?	else	default	fallback	none	Option2
Which keyword is used to define a function in Dart?	def	func	void	function	Option3
Which keyword is used to return a value from a function?	stop	return	end	yield	Option2
Which keyword is used for anonymous functions in Dart?	lambda	closure	arrow (=>)	inline	Option3
Which keyword is used to pass optional parameters in Dart functions?	optional	[ ]	{ }	?	Option2
Which keyword is used to throw an exception in Dart?	raise	throw	error	exception	Option2
Which block is used to catch exceptions in Dart?	catch	handle	error	except	Option1
Which block is always executed regardless of exceptions?	finally	end	close	last	Option1
Which keyword is used to create asynchronous functions in Dart?	async	await	future	promise	Option1
Which keyword is used to wait for asynchronous results?	wait	await	async	future	Option2
Which datatype represents asynchronous computation in Dart?	Future	Promise	Task	AsyncResult	Option1
Which keyword is used to define a generator function in Dart?	yield	generate	produce	stream	Option1
Which keyword is used to create a stream generator in Dart?	async*	stream	future*	yield*	Option1
Which operator is used for type test in Dart?	is	typeof	instanceOf	check	Option1
Which operator is used for typecast in Dart?	as	cast	convert	to	Option1
Which keyword is used to declare a class in Dart?	class	object	type	struct	Option1

Which keyword is used to create an object in Dart?	new	create	object	instance	Option1
Which keyword is used to inherit a class in Dart?	extends	inherits	implements	base	Option1
Which keyword is used to implement interfaces in Dart?	interface	implements	extends	with	Option2
Which keyword is used for mixins in Dart?	mixin	with	combine	trait	Option1
Which language influenced Dart's design the most?	Java	Python	Ruby	C++	Option1
Which feature allows Dart to run on multiple platforms?	Portability	Static typing	Garbage collection	Hot reload	Option1
Which tool manages Dart packages?	pub	npm	pip	cargo	Option1
Which command installs Dart SDK on macOS?	brew install dart	apt-get install dart	choco install dart-sdk	dart setup	Option1
Which command installs Dart SDK on Linux (Debian-based)?	apt-get install dart	yum install dart	brew install dart	choco install dart-sdk	Option1
Which command checks Dart version?	dart --version	dart check	dart info	dart status	Option1
Which online tool lets you run Dart instantly?	DartPad	DartRun	DartWeb	DartTest	Option1
Which Dart compiler converts code to native machine code?	dart2js	dart compile exe	dartc	dart-native	Option2
Which Dart compiler converts code to JavaScript?	dart2js	dart compile js	dartc	dart-js	Option1
Which runtime executes Dart code directly?	JVM	Dart VM	Node	Python Interpreter	Option2
Which feature allows Dart to run faster in production?	Ahead-of-time compilation	Just-in-time compilation	Garbage collection	Hot reload	Option1
Which feature allows faster development cycles in Dart?	Ahead-of-time compilation	Just-in-time compilation	Garbage collection	Portability	Option2

Question	Option A	Option B	Option C	Option D	Answer
Which Dart command compiles to native executable?	dart compile exe	dart2js	dart-native	dart run	Option1
Which Dart runtime supports both JIT and AOT?	JVM	Dart VM	Node	CLR	Option2
Which Dart feature makes it memory safe?	Garbage collection	Manual memory management	Pointers	Unsafe code	Option1
Which Dart command runs a program directly?	dart run	dart execute	dart start	dart begin	Option1
Which Dart command compiles to	dart2js	dart compile web	dart-js	dartc	Option1
Which Dart command creates a new project?	dart create	dart new	dart init	dart project	Option1
Which Dart command upgrades packages?	pub upgrade	dart update	dart upgrade	pub update	Option1
Which Dart command gets packages?	pub get	dart get	dart install	pub install	Option1
Which Dart command lists installed packages?	pub list	dart list	pub show	dart packages	Option1
Which Dart command runs tests?	dart test	dart run test	pub test	dart check	Option1
Which Dart command formats code?	dart format	dart style	dart tidy	dart clean	Option1
Which Dart command analyzes code for errors?	dart analyze	dart check	dart lint	dart debug	Option1
Which keyword declares a variable with inferred type?	var	let	define	auto	Option1
Which keyword declares a variable with fixed type?	var	int	auto	define	Option2
Which keyword declares a compile-time constant?	const	final	static	immutable	Option1
Which keyword declares a runtime constant?	final	const	static	var	Option1
Which operator is used for null-aware assignment?	??=	=?	?=	=	Option1

Question	Option A	Option B	Option C	Option D	Answer
Which operator is used for null-aware access?	?	?=	??	!?	Option1
Which operator is used for null-coalescing?	??	?=	?	=	Option1
Which keyword is used for type checking?	is	as	typeof	check	Option1
Which keyword is used for type casting?	as	is	cast	convert	Option1
Which keyword is used to define a class?	class	type	object	struct	Option1
Which keyword is used to inherit a class?	extends	implements	inherits	base	Option1
Which keyword is used to implement an interface?	implements	extends	interface	with	Option1
Which keyword is used to define a mixin?	mixin	with	trait	combine	Option1
Which keyword is used to include a mixin?	with	mixin	use	include	Option1
Which keyword is used to define an abstract class?	abstract	virtual	base	interface	Option1
Which keyword is used to override a method?	override	overwrite	redefine	replace	Option1
Which keyword is used to define a constant class member in Dart?	const	final	static	immutable	Option1
Which keyword is used to define immutable runtime class members?	final	const	static	var	Option1
Which keyword is used to create a constructor in Dart?	constructor	init	className	new	Option3
Which keyword is used for named constructors in Dart?	named	constructor	className	init	Option1
Which keyword is used to initialize superclass constructors?	super	base	parent	extends	Option1

Which keyword is used to refer to current object in Dart?	this	self	me	object	Option1
Which datatype is used for decimal numbers in Dart?	double	int	float	decimal	Option1
Which datatype can represent both int and double?	num	decimal	float	number	Option1
Which operator is used to add elements to a list?	add()	insert()	push()	append()	Option1
Which operator is used to remove elements from a list?	remove()	delete()	pop()	erase()	Option1
Which operator is used to check list length?	length	size	count	len	Option1
Which operator is used to access map values?	[key]	key	get(key)	valueOf(key)	Option1
Which operator is used to check if a key exists in a map?	containsKey	hasKey	exists	keyCheck	Option1
Which operator is used to check if a value exists in a map?	containsValue	hasValue	existsValue	valueCheck	Option1
Which keyword is used for conditional branching?	if	switch	case	loop	Option1
Which keyword exits a loop?	break	stop	exit	end	Option1
Which keyword handles unmatched cases in switch?	default	else	fallback	none	Option1
Which keyword is used for asynchronous loops in Dart?	await for	async for	future for	stream for	Option1
Which keyword is used for assertions in Dart?	assert	check	verify	ensure	Option1
Which keyword is used for throwing errors?	throw	raise	error	exception	Option1
Which keyword returns a value from a function?	return	yield	stop	end	Option1
Which syntax defines an anonymous function?	() { }	def()	func()	lambda()	Option1

Which keyword is used for default parameter values?	=	:	?	default	Option1
Which keyword is used for higher-order functions?	Function	func	def	callable	Option1
Which keyword is used for asynchronous functions?	async	await	future	promise	Option1
Which keyword is used to pause execution until async result?	await	async	future	delay	Option1
Which company developed Flutter?	Microsoft	Google ✅	Facebook	Oracle	
Flutter uses which programming language?	Java	Kotlin	Dart ✅	Swift	
In Flutter, everything is considered a:	Class	Object	Widget ✅	Function	
Which widget is the root of every Flutter app?	MaterialApp ✅	Scaffold	Container	AppBar	Option1
Which widget provides basic visual layout structure in Flutter apps?	Scaffold ✅	Container	Column	Row	Option1
Which widget is used to display text in Flutter?	Label	Text ✅	String	Paragraph	Option2
Which widget is used to display an image?	Picture	Image ✅	Photo	Graphic	Option2
Which widget is used to create buttons with Material Design?	ElevatedButton ✅	FlatButton	RaisedButton	Button	Option1
Which widget is used to align children vertically?	Row	Column ✅	Stack	Flex	Option2
Which widget is used to align children horizontally?	Column	Row ✅	Stack	Flex	Option2
Which property defines the child of a widget?	child ✅	parent	children	widget	Option1
Which property defines multiple children in a widget?	child	children ✅	widgets	list	Option2

Which widget allows stacking of children on top of each other?	Row	Column	Stack ✅	Flex	Option3
Which widget is used to provide padding around a child?	Container	Padding ✅	Margin	Box	Option2
Which widget is used to center a child widget?	Align	Center ✅	Position	Middle	Option2
Which widget is used to constrain child size?	ConstrainedBox ✅	SizedBox	Container	LimitBox	Option1
Which widget is used to provide spacing between children in a Row or Column?	Spacer ✅	Divider	Gap	Padding	Option1
Which widget is used to scroll a single child?	ListView	SingleChildScrollView ✅	ScrollBar	PageView	Option2
Which widget is used to scroll multiple children vertically?	SingleChildScrollView	ListView ✅	PageView	GridView	Option2
Which widget is used to scroll multiple children in a grid layout?	ListView	GridView ✅	PageView	Flex	Option2
Which widget is used to detect gestures like taps and swipes?	GestureDetector ✅	Listener	Detector	Touch	Option1
Which widget is used to display a progress indicator?	ProgressBar	CircularProgressIndicator ✅	LinearBar	Loader	Option2
Which widget is used to display a horizontal progress bar?	CircularProgressIndicator	LinearProgressIndicator ✅	ProgressBar	Loader	Option2
Which widget is used to create forms in Flutter?	Form ✅	TextField	Input	Scaffold	Option1
Which widget is used to accept user text input?	Input	TextField ✅	Form	Label	Option2
Which widget is used to create a dropdown menu?	DropdownButton ✅	Select	Menu	ComboBox	Option1
Which widget is used to create tabs in Flutter?	TabBar ✅	TabView	Tabs	Navigator	Option1

Question	Option 1	Option 2	Option 3	Option 4	Answer
Which widget is used to navigate between screens?	Navigator ☑	Router	PageView	Switch	Option1
Which widget is used to display a dialog box?	AlertDialog ☑	DialogBox	Popup	MessageBox	Option1
Which widget is used to display a snackbar message?	SnackBar ☑	Toast	Message	Alert	Option1