

Seat  
No.

223045

Set P

B.Sc. (E.C.S.) (Semester - VI) (New) (CBCS) Examination: March/April-2023

ENGLISH

Literary Mindscapes - I (ECS0601)

Day &amp; Date: Monday, 19-06-2023

Time: 03:00 PM to 05:00 PM

Max. Marks: 40

- Instructions:
- 1) All questions are compulsory.
  - 2) All questions carry equal marks.
  - 3) Figures to the right indicate full marks.

Q.1 Choose the correct word / Phrase from the given options and complete the sentence.

- 1) Aksionov lived as a convict in Siberian prison for \_\_\_\_\_ years.
  - a) twenty six
  - b) twenty two
  - c) twenty
  - d) thirty two
- 2) Mrs. Quick was associated with the \_\_\_\_\_.
  - a) Welfare Committee
  - b) Old age Home
  - c) Orphanage
  - d) Rotary Club
- 3) \_\_\_\_\_ is not a dream says John Keats in the poem 'Ode to Blindness'.
  - a) Illusions
  - b) ambition
  - c) life
  - d) goal
- 4) 'My Last Duchess' is based on historical events involving the \_\_\_\_\_.
  - a) Duke of Ferrara
  - b) Duke of Syberia
  - c) Robert Browning
  - d) Ezra Pound
- 5) \_\_\_\_\_ was found by Robert which was left by his wife.
  - a) money
  - b) note
  - c) ticket
  - d) wallet
- 6) The \_\_\_\_\_ of nature helps in strengthening the bond between nature and human beings.
  - a) cruelty
  - b) greenery
  - c) beauty
  - d) ugliness
- 7) The little lamb followed Mary everywhere. (Choose the type of adverb)
  - a) adverb of time
  - b) adverb of manner
  - c) adverb of place
  - d) adverb of frequency
- 8) He said to her, "What a Cold day!"
  - a) He told her that it was a Cold day.
  - b) He exclaimed that it was a Cold day.
  - c) He exclaimed Sadly that it was a Cold day.
  - d) He claimed that it was a very Cold day.

Q.2 Write answers in short (Any Four)

- 1) What did Robert Quick expect from his daughter's after returning from the business trip?
- 2) What did Makar Semyonich want from Aksionov?
- 3) Why the mother feels sad while narrating the story of Sita?



- 4) What are the things of beauty mentioned in the poem?
- 5) What is the poem 'My Last Duchess' about?
- 6) How does Charlotte Bronte ask her readers to look towards life?

**Q.3 Answer any One of the following Questions.**

- 1) How can technology literacy Skills help learners in the future?
- 2) What life skills are needed to become a good leader?

**Q.4 As a Sensitive human being, what measures do you to take to conserve the environment and how will you educate people about the importance of environment?**

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Max. Marks: 80

Instructions: 1) All questions are compulsory.  
2) Figures to right indicate full marks.

Q.1 A) Multiple choice questions.

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- 1) In the asymmetric key encryption technique, the number of keys used in the encryption and decryption process are \_\_\_\_\_.  
a) 2  
b) 3  
c) 4  
d) 5
- 2) \_\_\_\_\_ is the science and art of transforming messages to make them secure and immune to attack.  
a) Cryptography  
b) Cryptanalysis  
c) either (a) or (b)  
d) neither (a) or (b)
- 3) \_\_\_\_\_ algorithm transforms ciphertext to plaintext.  
a) Encryption  
b) Decryption  
c) Cipher  
d) None of the above
- 4) A small program that changes the way a computer operators \_\_\_\_\_.  
a) Worm  
b) Trojan  
c) Bomb  
d) Virus
- 5) A program that copies itself \_\_\_\_\_.  
a) Worm  
b) Virus  
c) Trojan  
d) Bomb
- 6) What are examples of Malware Spreads?  
a) Social network  
b) Pirated software  
c) Removable media  
d) All of the above
- 7) A Programme that deletes all the data from a computer is \_\_\_\_\_.  
a) Virus  
b) Malware  
c) Sweeper  
d) Adware
- 8) DoS attack coming from a large number of IP addresses, making it hard to manually filter or crash the traffic from such sources is known as a \_\_\_\_\_.  
a) GoS attack  
b) PDoS attack  
c) DoS attack  
d) DDos attack
- 9) Which of the following do not come under network layer DoS flooding?  
a) UDP flooding  
b) HTTP Flooding  
c) SYN flooding  
d) NTP Amplification
- 10) What is used for database security?  
a) data encryption  
b) a view  
c) finger print  
d) all of the above



B) Fill in the blank/Definition/One sentence answer/One word answer/  
Give the name/ Predict the product etc.

- 1) An attack in which the site is not capable of answering valid requests.
- 2) What is plaintext or cleartext?
- 3) What is the name of the encryption/decryption key known only to the party or parties that exchange secret messages? → Private key
- 4) DoS is abbreviated as \_\_\_\_\_
- 5) A virus type that is capable of transferring from one computer to another without any 'user intervention' is known as? → Worm
- 6) What are the common access rights on file?

Q.2 Solve any Eight of the following.

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- a) What is Token Based Authentication?
- b) What are flooding attacks?
- c) Explain about Trojans.
- d) Explain object & subject in Access Control.
- e) What is Biometric Authentication & its examples?
- f) What is the hashing function?
- g) List out Types of Malicious Software.
- h) What is Authorisation?
- i) What is Distributed Denial of Service?
- j) What are worms? Explain with an example.

Q.3 A) Attempt any Two of the following.

10

- 1) What are called Flooding Attacks?
- 2) Explain Malicious software Propagation in Social Engineering.
- 3) What are Reflector and Amplifier Attacks?

B) Short note/Solve

Explain what are Malicious Software & Types of Malicious Software?

06

Q.4 A) Attempt any Two of the following.

08

- 1) Explain Means of Authentication & various types of Biometric Authentication. — 3
- 2) What are Zombies, Phishing, Spyware, Backdoors & Rootkits?
- 3) What is the Need for Database Security? — 3

B) Describe/Explain/Solve

Explain RBAC Access Control System with Real-time example in detail.

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Q.5 Attempt any Two of the following.

16

- a) Explain what are the Defenses Against Denial-of-Service Attacks.
- b) Explain what are the Password-Based Authentication and Token-Based Authentication. — 3
- c) Explain about symmetric & asymmetric encryption with suitable examples. — 5



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SLR-QE-59

Set P

B.Sc. (E.C.S.) (Semester - VI) (New) (CBCS) Examination: March/April-2023  
Compiler Construction (ECS0603)

Day & Date: Wednesday, 21-06-2023  
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

- Instructions:
- 1) All questions are compulsory.
  - 2) Draw neat labelled diagrams wherever necessary.
  - 3) Figures to right indicate full marks.
  - 4) Use of log table and calculators is allowed.

Q.1 A) Multiple choice questions.

- 1) The \_\_\_\_\_ is used to eliminate common sub expression.  
a) Syntax tree  
b) annotated parse tree  
c) DAG  
d) none of these
- 2) The attributes that can be computed from the values of the attributes at the siblings and parent of that node is called as \_\_\_\_\_.  
a) synthesized  
b) inherited  
c) both a & b  
d) none of these
- 3) The \_\_\_\_\_ is optional phase of compiler.  
a) Lexical analyzer  
b) syntax analyzer  
c) code optimization  
d) code generation
- 4) The output of a lexical analyzer is \_\_\_\_\_.  
a) Machine code  
b) Intermediate code  
c) A stream of tokens  
d) A parse tree
- 5) \_\_\_\_\_ is the sequence of statements in compiler.  
a) Three address code  
b) syntax errors  
c) both a and b  
d) none of these
- 6) A memory allocates and deallocates storage as needed at runtime from data areas known as \_\_\_\_\_.  
a) heap  
b) stack  
c) static  
d) all of these
- 7) In some programming languages, an identifier is permitted to be a letter followed by any number of letters or digits. If L and D denotes the sets of letters and digits respectively, which of the following expressions define an identifier?  
a)  $(LUD)^*$   
b)  $L(LUD)^*$   
c)  $(L^*D)^*$   
d)  $L.(L.D)^*$
- 8) The \_\_\_\_\_ parser uses reduction process.  
a) Top down parser  
b) Bottom up Parser  
c) Either a or b  
d) Both a and b
- 9) The errors come due to undefined variable incompatible operands to operator is called \_\_\_\_\_ errors.  
a) lexical  
b) syntactic  
c) semantic  
d) logical



- 10) Grammar of the programming is checked at \_\_\_\_\_ phase of compiler.
- Semantic analysis
  - code generation
  - Syntax analysis
  - code optimization

**B) Give the One sentence answer.**

- Define String.
- What is left-most derivation?
- Write the three address code for the expression  $a = b + c + d$
- What is the s-attributed definition?
- What is Activation Records?
- Which data structure is used in symbol table?

**Q.2 Solve any Eight of the following.**

- What is the role of syntax analyzer?
- Explain Two pass compiler.
- Explain Lexical analysis phase.
- What is the difference between formal parameter and actual parameter?
- Construct DAG for Expression?  $i := 1 + 10$
- Write postfix notation for the expression  $c = a + b * d$
- What is the regular expression for string ends with 00 over an alphabet  $\{a, b\}$
- Define:
  - Synthesized attribute
  - Inherited attribute
- Explain syntax directed definition.
- List out phases that constitute the front-end of compiler.

**Q.3 a) Attempt any Two of the following.**

- What is Ambiguity in grammar? Consider the Grammar,  
 $E \rightarrow E + E / E * E / id$   
 Check whether the above grammar is ambiguous or not; if found ambiguous, remove the ambiguity and write an equivalent unambiguous grammar.
- Explain parameter passing techniques.
- What is the difference between S-attributed definition and L-attributed definition?

- b) What is syntax tree? Construct the syntax tree for the expression  $a - 4 * c$

**Q.4 a) Attempt any Two of the following.**

- What is Annotated parse tree? Construct annotated parse tree for  $3 * 5 + 4n$  using following grammar rules:

PRODUCTION	SEMANTIC RULE
$L \rightarrow EN$	Print(E.val)
$E \rightarrow E1 + T$	$E.val := E1.val + T.val$
$E \rightarrow T$	$E.val := T.val$
$T \rightarrow T1 * F$	$T1.val := T1.val * F.val$
$F \rightarrow digit$	$F.val := digit.lexval$

- What is storage organization? Explain sub-division of Run-time memory.
- Explain compiler construction tools.

- b) What is intermediate code generation? Explain types of three-address code implementation of statements.

**Q.5 Attempt any Two of the following.**

- Explain Storage allocation strategies.
- Explain phases of a compiler.
- What is Code generation? What are the issues in Code generation?



SLR-QE-60

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Set P

**B.Sc. (E.C.S) (Semester - VI) (New) (CBCS) Examination:  
March/April-2023**

**Internet Programming using ASP.Net (ECS0604)**

Day & Date: Thursday, 22-06-2023  
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

- Instructions:**
- 1) All questions are compulsory.
  - 2) Figures to the right indicate full marks.
  - 3) Draw neat labelled diagrams wherever necessary.
  - 4) Use of log table and calculators is allowed.

**Q.1 A) Choose the correct alternatives from the options.**

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- 1) 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
- 2) The type of code found in Code-Behind class is \_\_\_\_\_  
a) Client-side code      b) Server-side code  
c) Both a and b      d) None of these
- 3) \_\_\_\_\_ are different stages of an ASP.NET page?  
a) Page request  
b) Page load and initialization  
c) Postback and event handling  
d) All of the above
- 4) In checkbox, \_\_\_\_\_ property is used to get or set check box status.  
a) Status      b) Check box status  
c) Checked      d) None of these
- 5) A web application can contain \_\_\_\_\_.  
a) No File      b) Only one Web.config file  
c) Only two Web.config file      d) More than one Web.config file
- 6) \_\_\_\_\_ is the Datatype return in IsPostBack property.  
a) bit      b) Boolean  
c) int      d) object
- 7) In ASP.NET validation control \_\_\_\_\_ can be used to determine if data that is entered into a TextBox control is of type Currency.  
a) ValidationSummary      b) CompareValidator  
c) RequiredFieldValidator      d) None of the above
- 8) In ASP.NET the dll files are stored in \_\_\_\_\_ folder.  
a) Bin      b) App\_Data  
c) App\_Code      d) App\_LocalResources



- 9) \_\_\_\_\_ works on server side.      b) Hidden Field  
     a) View State      d) All of the above  
 10) In all web forms inherit \_\_\_\_\_ is the base class.  
     a) Master Page      b) Page Class  
     c) Session Class      d) None of these

**8) True or false**

- 1) Menus, tree view and site map path controls cannot be styled with CSS.  
 2) ASP.NET supports a number of programming models for building web applications.  
 3) Boolean is the Data Type return in IsPostBack property.  
 4) Load is not an ASP.NET page event.  
 5) Every server control must have an id.  
 6) ASP.NET was developed by Google.

**Q.2 Answer the followings (Any Eight):**

- a) Cookies  
 b) cross-page posting  
 c) SOAP  
 d) Content page  
 e) Post back concepts  
 f) Page Directives  
 g) Themes in Master Page  
 h) Processing Transactions  
 i) Update panel  
 j) Ad Rotator

**Q.3 A) Answer the followings (Any two):**

- 1) Write the step of Attach XML file to tree view and menu.  
 2) Explain Rich Controls in detail.  
 3) What is Master Page? Explain Nested Master pages.

**B) Explain Site Navigation Technique.****Q.4 A) Answer the followings (Any two):**

- 1) What is Web Service? Explain Creating Web services in detail.  
 2) Explain Architecture of ASP.NET in detail.  
 3) Explain any 5 basic standard controls in ASP.NET.

**B) Explain AJAX's Server side controls.****Q.5 Answer the following (Any Two).**

- a) Explain Types of Validation.  
 b) Explain State Management (Server and client side).  
 c) Write a program of DML commands in ADO.



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Set **P**

**B.Sc. (E.C.S.) (Semester - VI) (New) (CBCS) Examination:  
March/April-2023  
Angular JS (ECS0605)**

Day & Date: Friday, 23-06-2023  
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

- Instructions:**
- 1) All questions are compulsory.
  - 2) Draw neat diagrams wherever necessary.
  - 3) Figures to the right indicate full marks.
  - 4) Use of log table and calculators is allowed.

**Q.1 A) Multiple choice questions.**

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- 1) The \_\_\_\_\_ directives is used to start an AngularJS application.
  - a) ng-start
  - b) ng-init
  - c) ng-model
  - d) ng-app
- 2) The \_\_\_\_\_ directive is used to bind AngularJS data to HTML.
  - a) ng-model
  - b) ng-bind
  - c) ng-app
  - d) ng-repeat
- 3) AngularJS is a \_\_\_\_\_ framework.
  - a) Java
  - b) JavaScript
  - c) PHP
  - d) Python
- 4) Directives are used as \_\_\_\_\_.
  - a) An Element
  - b) As Class
  - c) As Comment
  - d) All of these
- 5) Multiple filters can be applied using \_\_\_\_\_ way.
  - a) {{ expression | filter1 | filter2 | ... }}
  - b) {{ expression | {filter1} | {filter2} | ... }}
  - c) {{ expression - {filter1} - {filter2} - ... }}
  - d) {{ {filter1} | {filter2} | ... - expression }}
- 6) The \_\_\_\_\_ property returns True if the form input has not been used yet.
  - a) \$touched
  - b) \$dirty
  - c) \$pristine
  - d) \$invalid
- 7) The \_\_\_\_\_ method of string object returns a string which remove whitespaces.
  - a) remove()
  - b) replace()
  - c) trim()
  - d) delete()
- 8) What is output of following code?  
print(parseInt("Hello123"));
  - a) 123
  - b) NaN
  - c) 1
  - d) Error
- 9) If you want to sort the data in descending order by using the orderBy filter, \_\_\_\_\_ prefix is used.
  - a) Plus sign (+)
  - b) Minus sign (-)
  - c) desc
  - d) desc



- 10) Following expression will be \_\_\_\_\_ type of expression.  
 \$scope.expression = { key1: 'welcome', key2: 'to', key3: 'Solapur'};
- String
  - Array
  - Object
  - Directory

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**B) Fill in the blank.**

- CDN stands for \_\_\_\_\_.
- AngularJS is based on \_\_\_\_\_ Architecture pattern.
- SPA is nothing but \_\_\_\_\_.
- We can create instance or allies of controller using \_\_\_\_\_ keyword.
- \_\_\_\_\_ keyword is used to define a variable in JavaScript.
- The \_\_\_\_\_ method is used to solve string of JavaScript code.

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**Q.2 Solve any Eight of the following.**

- What is two-way binding? Give example.
- How to set the AngularJS environment?
- Write out any four-event directives.
- What is the controller? Write example.
- What is use of a style tag? Give example.
- Write an example for the ng-hide and ng-show directive.
- What is Scope-less Controllers? Where it is used?
- What is the use of compose validation?
- Write any four String object methods of JavaScript with example.
- What is the use of the ng-option directive? Write example.

**Q.3 A) Attempt any two of the following.**

- What is Form validation? Explain different Angular built-in validators with example.
- What is modules? Explain Dependencies and Order of execution of modules with example.
- Write a custom filter for the character count, word count, and title case and use that filter.

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- B) What are JavaScript objects? Explain window, location objects with different methods.**

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**Q.4 A) Attempt any two of the following.**

- What are the difference between AngularJS Expressions and JavaScript Expressions?
- What is MVC? Explain the MVC architecture used in AngularJS.
- What are services? Explain Dependencies in a Service.

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- B) What is the Directive? Explain how to create a custom directive with an example.**

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**Q.5 Attempt any two of the following.**

- What are the different types of expressions used in AngularJS? Explain with an example.
- What are scope Hierarchies? Explain scope broadcasting with an example.
- What are different template directives used in AngularJS? Explain any four template directives with example.

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SLR-QE-62

Set **P**

**B.Sc. (E.C.S.) (Semester - VI) (New) (CBCS) Examination:**  
**March/April-2023**

**Mobile Application Development (Special Paper - XI) (ECS0606)**

Day & Date: Saturday, 01-07-2023

Time: 03:00 PM To 06:00 PM

Max. Marks: 80

**Instructions:** 1) All questions are compulsory.  
2) Figures to right indicate full marks.

**Q.1 A) Choose correct alternatives.**

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- 1) \_\_\_\_\_ is the correct name for the layout design file of an activity in android application.  
a) MainActivity.java                      b) activity\_main.xml  
c) Gradle.sql                                d) none of these
- 2) \_\_\_\_\_ Android Studio folders includes drawable files for different launcher icon.  
a) Mipmap                                      b) Layout  
c) String                                        d) Values
- 3) If you want to configure a link between two Android activities in the same Android application, you need to use \_\_\_\_\_.  
a) Gradle                                        b) Toast  
c) seek bar                                      d) intent
- 4) SQLite is an Open Source Database system embedded into every Android device.  
a) true    b) false
- 5) Android is open source and \_\_\_\_\_ Based operating system for mobile devices.  
a) IOS     b) Linux  
c) Windows                                      d) Apple
- 6) \_\_\_\_\_ Component represents the single screen with the user interface.  
a) Activity                                        b) Service  
c) Broadcast receiver                        d) Content provider
- 7) \_\_\_\_\_ is responsible for code compilation, testing, deployment and conversion of the code into .dex file.  
a) Manifest                                      b) Gradle  
c) AppCode                                        d) none of these
- 8) APK stands for Android program.  
a) True    b) False
- 9) The \_\_\_\_\_ arranges widgets in positions relative to each other.  
a) LinearLayout                                b) ConstraintLayout  
c) RelativeLayout                                d) None of these
- 10) What is the extension of dex code?  
a) .txt    b) .java  
c) .class    d) .dex



## B) Fill in the blanks.

- 1) AVD stands for \_\_\_\_\_.
- 2) The full form of DVM is \_\_\_\_\_.
- 3) The \_\_\_\_\_ is a layout that arranges other views either horizontally in a single column or vertically in a single row.
- 4) \_\_\_\_\_ permission is used for use camera.
- 5) URI stands for \_\_\_\_\_.
- 6) Intent with \_\_\_\_\_ Action is created to send Email in Android application.

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## Q.2 Solve any Eight of the following.

- 1) What is Android?
- 2) Write a note on TextView.
- 3) Write a note on ImageView.
- 4) DatePicker view in Android.
- 5) What is DVM?
- 6) Content provider registration in androidManifest.xml.
- 7) What is use of Geocoding?
- 8) Write name of permissions used to send and receive SMS.
- 9) What is intent filter?
- 10) What is use of String.xml?

## Q.3 A) Answer the following. (Any Two)

- 1) List out Android Market Application Store.
- 2) Write a program to display typed content of EditText in TextView.
- 3) Write a List of System generated intent.

B) What is intent? Explain type of Intent.

## Q.4 A) Answer the following. (Any Two)

- 1) Write the list of methods in Activity.
- 2) Differentiate View and ViewGroup.
- 3) Explain Broadcast receiver.

B) What is Android SDK?

## Q.5 Answer the following. (Any Two)

- a) Explain Android architecture.
- b) Write a program to demonstrate LinearLayout. (write XML file with button, EditText and TextView).
- c) Explain AndroidManifest.xml.