

VIRTUAL UNIVERSITY OF PAKISTAN

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

TEAM HADI(VU LAHORE)

MID TERM PAST PAPER

We Deal All Kind of VU Project
(PHP, .NET, ANDROID, PYTHON)

MADE AND SOLVED BY HADI

WARNING: Team HADI is not responsible for any mistake or wrong answer. All students reading and using this document may check and confirm the answers at their own.



WhatsApp: 03087122922



FACEBOOK ID: <https://www.facebook.com/hadipastpapers/>

Best of luck!



Question # 1 of 30 (Start time: 11:29:54 AM, 30 December 2020)

Total Marks: 1

If L_1 and L_2 are regular languages, $L_1 \cap (L_2' \cup L_1')$ will be

Select the correct option

☒	regular
☐	non regular
☐	may be regular
☐	none of the mentioned

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 4 of 30 (Start time: 11:34:05 AM, 30 December 2020)

Total Marks: 1

In Mealy machine the output depends on _____

Select the correct option

☐	Only present state	/
☒	Present state and Present input	/
☐	Nothing	/
☐	Type of input	/

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question # 21 of 30 (Start time: 11:54:22 AM, 30 December 2020)

Total Marks: 1

There is no question of accepting any language in:

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL-03087122922

Select the correct option

☐	FA
☒	Moore machine
☐	Melay machine
☐	Both moore and melay machine

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 25 of 30 (Start time: 12:00:13 PM, 30 December 2020)

Total Marks: 1

The state where there is no way to leave after entry is called _____.

Select the correct option

☒	Davey John locker	
☐	initial state	
☐	final state	
☐	non-final state	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Question # 8 of 30 (Start time: 12:29:42 PM, 30 December 2020)

Total Marks: 1

FA corresponding to an NFA can be built by introducing an empty state for a letter having

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP & CALL: 03087122922

Select the correct option

☒	no transition at certain state
☐	one transition at certain state
☐	two transitions at certain state
☐	more than two transitions at certain state

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 23 of 30 (Start time: 11:57:00 AM, 30 December 2020)

Total Marks: 1

Which of the following diagrams expresses languages more simply?

Select the correct option

☐	FA
☐	NFA
☐	TG
☒	GTG

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question # 28 of 30 (Start time: 12:03:39 PM, 30 December 2020)

Total Marks: 1

Automata is the plural of _____.

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

Select the correct option

☐	automate
☒	automaton
☐	automation
☐	automatic

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 5 of 30 (Start time: 11:35:34 AM, 30 December 2020)

Total Marks: 1

If A and B are regular languages, $(A \cup B)$ is:

Select the correct option

☒	regular
☐	non regular
☐	may be regular
☐	none of the mentioned

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question # 12 of 30 (Start time: 11:44:27 AM, 30 December 2020)

Total Marks: 1

In NFA having no transition at certain state, FA can be built by introducing:

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

Select the correct option

☒	Empty state
☐	Combination of states
☐	Initial state
☐	Final state

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 2 of 30 (Start time: 01:52:39 PM, 30 December 2020)

Total Marks: 1

If $S = \{x\}$, then S^* will be _____.

Select the correct option

- | | | |
|----------------------------------|--|--|
| ☐ | $\{^{\wedge}x,xxx,xxxx,xxxxx,\dots\}$ | |
| ☒ | $\{^{\wedge}x,xx,xxx,xxxx,\dots\}$ | |
| ☐ | $\{^{\wedge}x,xxx,xxxxx,xxxxxxx,\dots\}$ | |
| ☐ | $\{^{\wedge}xx,xxxx,xxxxxx,xxxxxxxx,\dots\}$ | |

MADE BY HADI

Email:hadirajputofficial@gmail.comWhatsapp:03087122922(Team Hadi Lahore)

Question # 14 of 30 (Start time: 11:46:59 AM, 30 December 2020)

Total Marks: 1

Considering FA1 and FA2 having 2 states each. Now FA1+FA2 can have maximum _____ number of states.

Select the correct option

☐	2	
☐	3	
☐	more than 3	
☒	None of the given options	

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 1 of 30 (Start time: 01:51:55 PM, 30 December 2020)

Total Marks: 1

In an FA, when there is no path starting from initial state and ending in final state then that FA_____.

Select the correct option

☐	accept null string	
☒	accept all strings	
☐	accept all non empty strings	
☐	does not accept any string	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 2 of 30 (Start time: 12:23:51 PM, 30 December 2020)

Total Marks: 1

According to theory of automata there are _____ types of languages.

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL:hadirajputofficial@gmail.com
WHATSAPP& CALL-03087122922

Select the correct option

☐	One	
☒	Two	
☐	Three	
☐	Four	

MADE BY HADI

Email:hadirajputofficial@gmail.comWhatsapp:03087122922(Team Hadi Lahore)

Question # 25 of 30 (Start time: 12:47:10 PM, 30 December 2020)

Total Marks: 1

In Moore machine, if the length of input string is 9, then the length of output string will be:

Select the correct option

- | | | |
|----------------------------------|----|--|
| ☐ | 7 | |
| ☐ | 8 | |
| ☐ | 9 | |
| ☒ | 10 | |

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 23 of 30 (Start time: 12:45:41 PM, 30 December 2020)

Total Marks: 1

When ODD language is expressed by an FA, then it will have minimum _____ states.

Select the correct option

☒	one
☐	two
☐	three
☐	four

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 30 of 30 (Start time: 12:05:52 PM, 30 December 2020)

Total Marks: 1

$[(a + b)(a + b)]^*$, given RE cannot generate the string _____.

Select the correct option

- | | |
|----------------------------------|------------|
| ☐ | abbaabab |
| ☐ | abbbbaa |
| ☒ | bbbbbbb |
| ☐ | abbbbaaaaa |

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question # 22 of 30 (Start time: 02:07:50 PM, 30 December 2020)

Total Marks: 1

Which of the following statement is true about GTG?

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL-hadirajputofficial@gmail.com
WHATSAPP& CALL-03087122922

Select the correct option

- | | | |
|----------------------------------|---|--|
| ☐ | Transitions are based on input letters | |
| ☐ | Transitions are based on specified substrings | |
| ☒ | Transitions are based on regular expressions | |
| ☐ | Transitions are based on alphabet set | |

MADE BY HADI

Email-hadirajputofficial@gmail.comWhatsapp:03087122922(Team Hadi Lahore)

Question # 5 of 30 (Start time: 01:54:20 PM, 30 December 2020)

Total Marks: 1

Every _____ is a _____ as well, but the converse may not be true.

Select the correct option

☐	TG, FA
☒	FA, TG
☐	TG, GTG
☐	FA,GTG

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Question # 18 of 30 (Start time: 12:40:12 PM, 30 December 2020)

Total Marks: 1

Which one of the following machine is represented as a pictorial representation with states and directed edges labeled by an input letter along with an output character?

Select the correct option

☐	Moore machine
☒	Mealy machine
☐	Finite state machine
☐	Deterministic finite state machine

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP & CALL: 03087122922

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 24 of 30 (Start time: 02:09:14 PM, 30 December 2020)

Total Marks: 1

The recursive method for defining a language has _____ steps.

Select the correct option

- | | | |
|----------------------------------|-------|--|
| ☐ | one | |
| ☐ | two | |
| ☒ | three | |
| ☐ | four | |

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question # 6 of 30 (Start time: 01:55:05 PM, 30 December 2020)

Total Marks: 1

Consider the following RE:

 $a(a + b)b^*$

All of the following words are accepted except _____.

Select the correct option

☐	asb	
☐	abb	
☒	aa	
☐	aba	

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP & CALL: 03087122922

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 29 of 30 (Start time: 12:05:01 PM, 30 December 2020)

Total Marks: 1

Which of the following regular expressions represent same language?

1. $(a+ab)^*$
2. $(ba+a)^*$
3. $a^*(aa^*b)^*$
4. $(a^*b^*)^*$

Select the correct option

☒	1 and 2
☐	1 and 3
☐	3 and 4
☐	1 and 4

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Question # 10 of 30 (Start time: 01:57:43 PM, 30 December 2020)

Total Marks: 1

For every three regular expressions R, S, and T, the languages denoted by $R(S \cup T)$ and $(RS) \cup (RT)$ are the _____.

Select the correct option

☒	Same
☐	Different
☐	$R(S \cup T)$ is Greater
☐	None of the given options

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 27 of 30 (Start time: 02:10:29 PM, 30 December 2020)

Total Marks: 1

Alphabet S = {a, bc, cc} has _____ number of letters.

Select the correct option

☐	One	//
☐	Two	//
☒	Three	
☐	Four	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 22 of 30 (Start time: 11:56:00 AM, 30 December 2020)

Total Marks: 1

An _____ can be considered to be an intermediate structure between Finite automaton and Transition Graph.

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

Select the correct option

☐	RE
☐	GTG
☒	NFA
☐	None of the given options

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Question # 2 of 30 (Start time: 11:31:21 AM, 30 December 2020)

Total Marks: 1

Two FAs are said to be equivalent, if they _____.

Select the correct option

☐	accept null string	
☒	accept same language	
☐	accept different language	
☐	none of the given options	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Question # 20 of 30 (Start time: 12:42:40 PM, 30 December 2020)

Total Marks: 1

There may be more than one transition for a certain letter on a state in:

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL-03087122922

Select the correct option

☒	Finite Automata	
☐	Non-Deterministic Finite Automata	
☐	Transition Table	
☐	Moore Machine	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 7 of 30 (Start time: 01:55:32 PM, 30 December 2020)

Total Marks: 1

----- can also help in proving Kleene Theorem III.

Select the correct option

☒	NFA	
☐	PDA	
☐	Moore machine	
☐	Melay machine	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 21 of 30 (Start time: 02:07:18 PM, 30 December 2020)

Total Marks: 1

Kleene's Theorem Part II expresses the relationship between _____.

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

Select the correct option

☐	FA and TG	
☒	TG and RE	
☐	RE and FA	
☐	FA and RE	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 14 of 30 (Start time: 02:01:23 PM, 30 December 2020)

Total Marks: 1

When ODD language is expressed by an FA, then it will have minimum _____ states.

Select the correct option

☒	one
☐	two
☐	three
☐	four

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question # 12 of 30 (Start time: 01:59:05 PM, 30 December 2020)

Total Marks: 1

FA corresponding to an NFA can be built by introducing an empty state for a letter having

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL-03087122922

Select the correct option

☒	no transition at certain state	/
☐	one transition at certain state	/
☐	two transitions at certain state	/
☐	more than two transitions at certain state	/

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 26 of 30 (Start time: 12:48:01 PM, 30 December 2020)

Total Marks: 1

Let L be the language of all strings, defined over $\Sigma = \{0,1\}$, ending in 10. Which of the following strings are distinguishable with respect to L with z being 0?

Select the correct option

☒	111, 101	
☐	001, 101	
☐	111, 111	
☐	010, 101	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Question # 3 of 30 (Start time: 12:24:29 PM, 30 December 2020)

Total Marks: 1

FA is also called

Select the correct option

☐	TG
☐	GTG
☐	NFA
☒	DFA

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL: 03087122922

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 13 of 30 (Start time: 11:45:49 AM, 30 December 2020)

Total Marks: 1

If two RE's generate same language then these RE's are called _____.

Select the correct option

☐	Same RE
☐	Equal RE
☐	Similar RE
☒	Equivalent RE

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Question # 24 of 30 (Start time: 11:59:08 AM, 30 December 2020)

Total Marks: 1

We cannot construct an NFA for the language of _____ defined over alphabet set {a,b}.

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP & CALL: 03087122922

Select the correct option

☐	Even even
☐	odd
☒	Palindromes
☐	Integers

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question # 18 of 30 (Start time: 11:52:03 AM, 30 December 2020)

Total Marks: 1

Kleene's Theorem Part III expresses the relationship between _____

Select the correct option

☐	FA and TG	
☐	TG and RE	
☒	RE and FA	
☐	FA and RE	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 1 of 30 (Start time: 12:22:39 PM, 30 December 2020)

Total Marks: 1

Let FA3 be an FA corresponding to FA1FA2, then the initial state of FA3 must correspond to the initial state of

Select the correct option

☒	FA1 only	1/1
☐	FA2 only	0/1
☐	FA1 or FA2	0/1
☐	FA1 and FA2	0/1

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP& CALL-03087122922

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question # 20 of 30 (Start time: 11:53:58 AM, 30 December 2020)

Total Marks: 1

Every FA should be _____

Select the correct option

☒	deterministic	
☐	non-deterministic	
☐	deterministic and non-deterministic	
☐	not depends on language	

MADE BY HADIEmail: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

HADI VU PAST PAPER

WE DEAL ALL KIND OF VU PROJECT
(PHP, ANDROID, PYTHON)

DEAR STUDENTS

ARE YOU LOOKING
FOR ASSISTANCE

- 1) ASSIGNMENTS
- 2) QUIZZES
- 3) GDB
- 4) GRAND QUIZZES

We Provide, You Solution
of VU Academic Activities
include Assignments,
Quizzes, GDBs, Grand Quizzes
If You Need Help in Services
Kindly inform us.

TEAM HADI
(VU LAHORE)



TEAM HADI
(VU LAHORE)



HADI TECH

#PAID_TASK

CONTACT US

CALL & WHATSAPP

0308-7122922