

Adabistan-e-Soophia

2nd Term Examination 2020 – 21

Student's Name																	
Class	Pre – IX	Roll #								Paper	Computer Science						
QUESTION NUMBER		1	2	3	4	5	Total										
MAXIMUM MARKS		10	24	08	08	08	50										
MARKS OBTAINED																	
CHECKED BY:																	

1. Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink. Cutting or filling two or more times result is zero mark in that question.

Sr #	Questions	(A)	(B)	(C)	(D)
i.	_____ means to test if the required solution is there.	algorithm	flowchart	verification	validation
ii.	Which number system is used by digital computers?	binary	octal	decimal	hexadecimal
iii.	The base of _____ number system is 16.	binary	decimal	both (A) & (B)	none of these
iv.	We use expansion method to convert from _____.	binary to decimal	hexa to decimal	decimal to binary	both (A) & (B)
v.	Which number system is also called Hindu-Arabic number system?	binary	decimal	hexadecimal	all of these
vi.	Collection of 8 bits is called:	bite	byte	megabyte	gigabyte
vii.	Close the door is:	proposition	compound proposition	moral proposition	none of these
viii.	Which logical operator works with only one proposition?	AND	OR	NOT	all of these
ix.	Associative law proves that:	$A + B = B + A$	$A.B = B.A$	$(A + B) + C = A + (B + C)$	none of these
x.	1 PETABYTE=	$(1024)^4$ bytes	$(1024)^5$ bytes	$(1024)^6$ bytes	$(1024)^7$ bytes

(Section – I)

Note: Don't use ink remover anywhere in the paper.

Write proper question numbers and part numbers as mentioned in question paper.

2. Attempt the following questions. (Any 12)

(12x2=24)

- i. What is Verification?
- ii. What is Validation?
- iii. What is the purpose of using invalid data for testing?
- iv. What is Number System?
- v. What is hexadecimal number system?
- vi. Convert $(1001101)_2$ into hexadecimal.
- vii. Convert $(8340)_{10}$ into binary.
- viii. What is the difference between volatile and non-volatile memory?
- ix. What is ASCII?
- x. What is Boolean proposition? Give example.
- xi. What is the difference between AND operator and OR operator?
- xii. What is NOT operator?
- xiii. What is commutative law? Prove with one of its truth table.
- xiv. What is Boolean expression?

(Section – II)

Note: Solve the following questions. (Any Two)

(8x2=16)

3. What is a trace table? Explain trace table with the help of an example. **(08)**
4. Solve the following:
- (a) Convert $(ABCD5)_{16}$ into binary and decimal. **(04)**
- (b) Convert $(69610)_{10}$ into binary and hexadecimal. **(04)**
5. (a) Define memory. Explain how the size of computer memory is measured. **(04)**
- (b) Prove that: $A + (B.C) = (A + B).(A + C)$ **(04)**