

Section 1 - Verbal Ability

No. Of Questions: 10
Duration in Minutes: 10

Directions for Questions 1-3:

Choose the word nearest in meaning to the word in *ITALICS* from the given options.

1) The ant is believed to be the most *industrious* creature.

- A) Sensible B) Hard working C) Intelligent D) Organized
-

2) The defendant was grateful for the judge's *clemency*.

- A) Patience B) Mercy C) Verdict D) Civility
-

3) Ravi was *ravenous* after the trek because he had eaten only biscuits.

- A) Ill B) Famished C) Tired D) Nauseous
-

Directions for Questions 4-6:

Choose the answer option, which will **CORRECTLY** fill the blank.

4) While strolling on Janpath, I chanced to meet ____ European.

- A) The B) A C) An D) No article required
-

5) _____ few public libraries we have are under equipped.

- A) A B) An C) The D) No article required
-

6) Anil is in the habit of smoking before going to ____ bed at night.

- A) An B) A C) The D) No article required
-

Directions for Questions 7-8:

Choose the option, which will **CORRECTLY** fill the blank.

7) He turned up early to make sure that he had a seat _____ the plane.

- A) In B) On C) At D) For
-

8) Dr. Robert Scaer examines dissociation and PTSD _____ the perspective of a neurologist.

- A) In B) By C) With D) From
-

Directions for Questions 9-10:

Read the passage and answer the questions that follow on the basis of the information provided in the passage.

Cyber connection: Indo-Pak youths bridge gap
NDTV Correspondent

<http://www.ndtv.com/features/showfeatures.asp?slug=Indo%2DPak+youths+bridge+gap&Id=1584>

As India and Pakistan discuss peace at the level of the government, there is an active process of engagement taking place on the internet. In the past, Indians and Pakistanis may have hounded each other on internet chat forums but now, there is a sense of peace and harmony on some sites, where diverse and open ended conversations genuinely bring people closer.

Huma Imtiaz Ali, a Content Development Associate at AAG TV, resides in the port city of Karachi. She is often found busy punching in her reply to a post about the Kashmir issue on an Indo-Pak discussion forum that she's part of. "The usage of mediums such as Orkut, Facebook and blogging websites has widely increased in over the past year or so, and has helped bridge gaps between the India and Pakistan," said Huma. "Every time there is an issue related to the subcontinent, I log on to Sepiamutiny.com or chapatimystery.com to read the views of Indian expats, and to get an idea of what their thoughts might be," she added. "I use Facebook.com on the other hand to interact with people my age from the other side of the border, where we talk about rather fun topics such as about gossip in Bollywood, favourite movies, TV shows, etc, which has made me realize that despite 60 years of separation, we are still very much alike," Huma adds.

The issues discussed on such forums tend to be diverse but the aim of these websites is much the same - to encourage interaction between youth on either side of the border. And it was one such website that forged a cross-border friendship.

"In my last year at art school, my class was in the process of planning an educational trip to India. Since we didn't know the specifics about how to plan the trip, where to stay, and what to see first, I attempted to get some information by posting a topic on the Pak/India community on orkut (which is wildly popular both here and across the border)," said Khizra Munir, Creative Executive, Interflow Communications Ltd, Karachi. "A Delhiite replied to my 'plea' and after exchanging email addresses we exchanged information. We later went on to meet him in Delhi, he took us around Janpath and he continues to be a friend," she said.

Often enough, such forums can provide a common ground for complete strangers as Flickr.com did for Ali Khurshid and Jaya. "My maternal grandparents came to Pakistan from Bhopal and have forever told me so many stories about the little village with the one hill and the big lake and the small lake that the entire setting has occupied a legendary status in my mind, says Ali Khurshid, a second year student at the Indus Valley School of Art and Architecture, Karachi.

"Around a year ago I met Jaya, also from Bhopal who was posting pictures from this "magical" place. For starters I was stunned by how close the images in my mind were to the pictures she had and secondly we became friends in spite of the illusory walls of religion, nationality and prejudice that would have otherwise come in between us," said Ali.

In absence of all other means of communication, cyberspace is fast becoming one most important means of dialogue between the youths of India and Pakistan. Such interactive forums are a small yet positive step in the right direction but only time will tell if measures like these will change mindsets and bridge the gap created by 60 years of separation between the two countries.

9) The writer of this article generally believes that:

- a) The youth of India and Pakistan do not attack each other at all on the Internet now.
- b) There is more meaningful interaction on the net between these youth now than before.
- c) Such interaction will definitely lead to the establishment of peace between the two countries.
- d) It is the two governments which have brought the youth of these nations together.

A) i

B) ii

C) iii

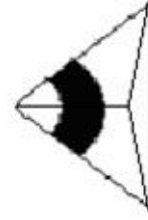
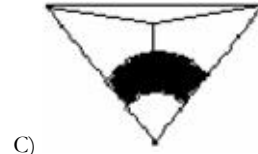
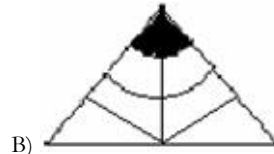
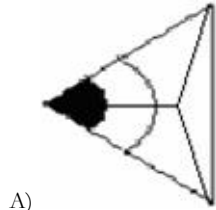
D) iv

10) Which of the following statements about Huma Imtiaz Ali is FALSE?

- A) Facebook helps her to realize what she shares with the Indian members.
 - B) She is actively involved in the discussion groups related to Kashmir.
 - C) She generally finds serious subjects discussed on Chapatimystery.
 - D) She finds only serious subjects discussed on the various sites.
-

Choose the image, which completes the pattern.

8)



9) Complete the series:

2, 10, 30, 68, ____

A) 88

B) 130

C) 82

D) 102

10) Complete the series:

0, 14, 78, ...

A) 252

B) 84

C) 140

D) None of the options

Directions for Questions 9-10:

A credit card company issues its credit cards to those who satisfy the following minimum criteria.

- i) The candidate should not have filed for bankruptcy in the last 15 years.
- ii) The candidate should have a minimum income of \$48,000 per annum.
- iii) The candidate should have life insurance.
- iv) The candidate should have at least a Car and a House registered in his name.

1. In case he satisfies all other criteria EXCEPT (iii), he must possess at least one credit card of any other company to be eligible.

2. In case he satisfies all other criteria EXCEPT (iv), he is interviewed by an agent of the credit card agency.

9) Gopal is 54, and has an annual income of \$120,000 per year. He had filed for bankruptcy 18 years back during recession. He has life insurance and property insurance, and has three mansions in three different states of US. He has 2 cars. He is:

- A) Granted the credit card
- B) Interviewed by an agent of the credit card company
- C) Denied the credit card
- D) Data insufficient

10) Ben has a monthly income of \$4000, doesn't have Life Insurance, and has filed for bankruptcy twice in the last 8 years. He has two cars and a house in his name. He is:

- A) Issued the credit card immediately by the company
 - B) Interviewed by an agent of the company
 - C) Data insufficient
 - D) Denied the credit card
-

Section 4 - Programming Fundamentals

No. Of Questions:10
Duration in Minutes: 10

Study the following scenario:

A class has a combination of girls and boys as students. The age of girls is less than 21 years and the age of boys is greater than 20 years. Use the following rules to assign the grades to students based upon the marks obtained by them:

GRADE	Obtained	MARKS
A	Greater than	69%
B	Greater than	59 AND Less than 70%
C	Greater than	34 AND Less than 60%
D	Less than	35

Only students who got marks greater than 34% are eligible for the next semester. Assume that the class strength is 100.

1) Which of the following is the CORRECT Algorithm to calculate the total number of students who obtained Grade A?

- A) STEP 1: START
STEP 2: SET stud_num equals to 1 and result equals to 0
STEP 3: IF stud_number is less than 101 THEN goto STEP 4 otherwise goto STEP 6
STEP 4: IF marks of student stud_num is greater than 69% THEN goto STEP 5 otherwise goto STEP 7
STEP 5: INCREMENT result by 1
STEP 6: INCREMENT stud_num by 1 goto STEP 3
STEP 7:PRINT result number of students got the Grade B
STEP 8:END
- B) STEP 1: START
STEP 2: SET stud_num equals to 1 and result equals to 0
STEP 3: IF stud_number is less than 101 THEN goto STEP 4 otherwise goto STEP 7
STEP 4: IF marks of student stud_num is greater than 69% THEN goto STEP 5 otherwise goto STEP 6
STEP 5: INCREMENT result by 1
STEP 6: INCREMENT stud_num by 1 goto STEP 3
STEP 7:PRINT result number of students got the Grade B
STEP 8:END
- C) STEP 1: START
STEP 2: SET stud_num equals to 0 and result equals to 1
STEP 3: IF stud_number is less than 100 THEN goto STEP 6 goto STEP 7
STEP 4: IF marks of student stud_num is greater than 69% THEN goto STEP 8 otherwise goto STEP 6
STEP 5: INCREMENT result by 1
STEP 6: INCREMENT stud_num by 1 goto STEP 3
STEP 7:PRINT result number of students got the Grade B
STEP 8:END
- D) STEP 1: START
STEP 2: SET stud_num equals to 1 and result equals to 1
STEP 3: IF stud_number is less than 101 THEN goto STEP 5 goto STEP 7
STEP 4: IF marks of student stud_num is greater than 69% THEN goto STEP 6 otherwise goto STEP 7
STEP 5: INCREMENT result by 1
STEP 6: INCREMENT stud_num by 1
STEP 7:PRINT result number of students got the Grade B
STEP 8:END

2) In which of the following areas do you measure the efficiency of algorithms?

- A) Time B) Precision C) Readability D) Accuracy

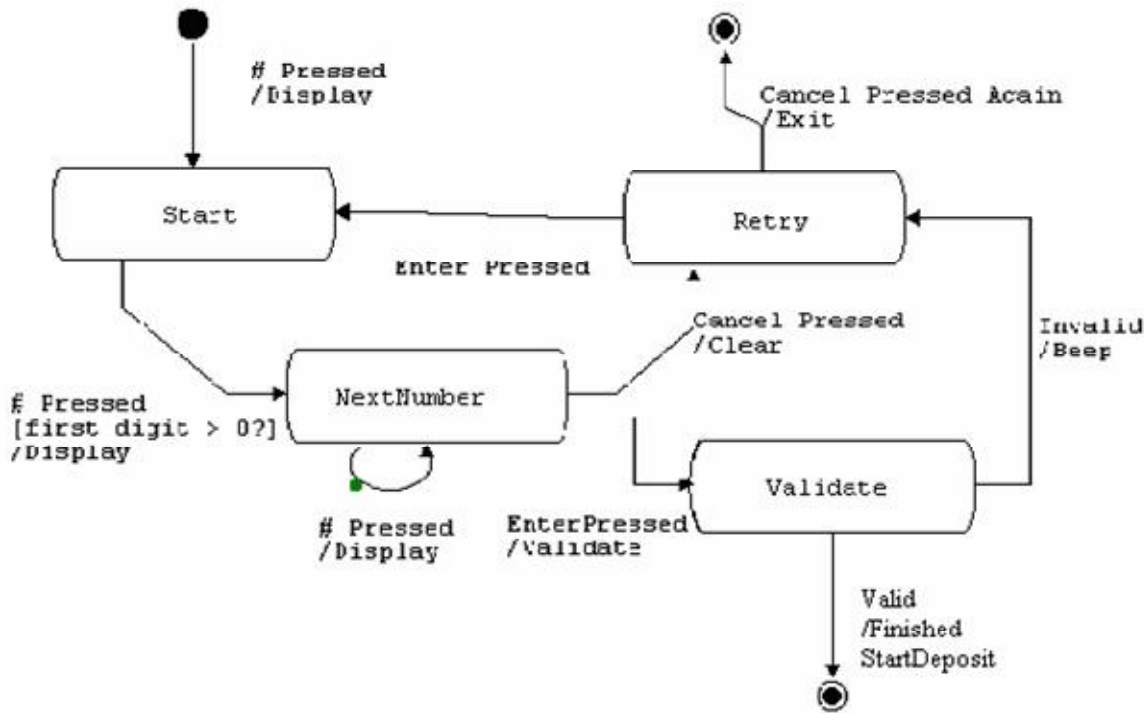
3) Which of the following statement types is/are essential for describing algorithms?

- A) Sequence B) Selection C) Repetition D) All the options

Directions for Questions 4-6:

Study the given state diagram of an ATM (Automatic Teller Machine) system and answer the questions given below.

A small black circle represents the initial state, wait states are represented by rounded rectangles, and a small black circle surrounded by a white circle represents the final state. Transitions are represented by arrows, and reflect change of state. The event is an activity either from the user or the system that causes a change of state.



4) What does the ATM system do as depicted in the state diagram?

- A) Verifies the user password
- B) Verifies the transaction
- C) Verifies the login details (User Id and Password)
- D) Prints out a mini account statement

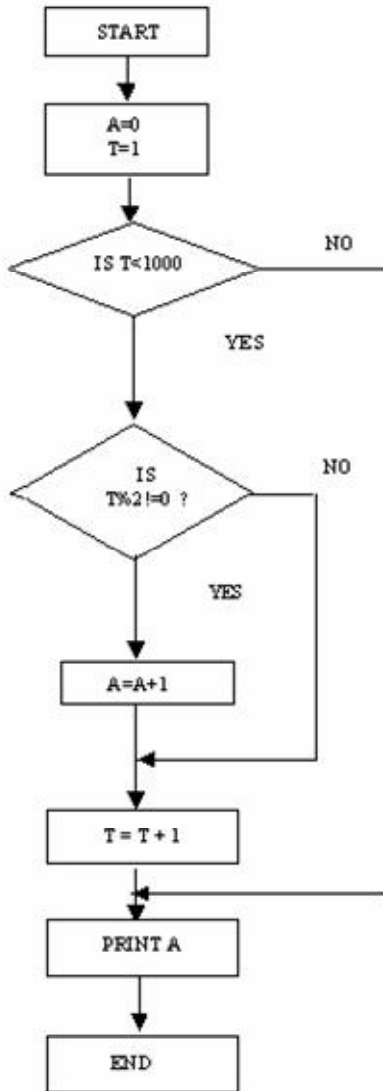
5) Which of the following is an example for the user event?

- A) #Pressed/Display
- B) Cancel Pressed
- C) EnterPressed/Validate
- D) Invalid

6) Which of the following is an example for the system event?

- A) Cancel Pressed/Clear
- B) Invalid/Beep
- C) EnterPressed/Validate
- D) Valid

7) What does the given flowchart do?



- A) Prints the sum of all odd numbers, which are less than 1000.
- B) Prints the series of odd numbers that falls between 0 – 1000
- C) Prints the sum of all even numbers, which are less than 1000.
- D) Prints the series of even numbers that falls below 1000

8) Which kind of testing is related to the Coding phase of SDLC?

- A) Integration testing
- B) System testing
- C) Component testing
- D) User acceptance testing

9) In which of the following stages does decision making phase start with a Product?

- A) Dogs
- B) Stars
- C) Question marks
- D) Cash cows

10) Which of the following strategies ensure that the software system will meet the requirements of the product, as well as address future requirements?

- A) Software Architecture
- B) Implementation
- C) Specification
- D) Testing

Section 5 - Learning Ability (Passage)

Duration in Minutes: 15

Directions for Questions 1-5:

Read the passage and answer the questions that follow on the basis of the information provided in the passage.

Methods Of File Organization

Records are stored in files using a file organization that determines how the records will be stored, located, and retrieved.

Sequential organization is the simplest way to store and retrieve records in a file. In a sequential file, records are stored one after the other without concern for the actual value of the data in the records. To read a sequential file, the system always starts at the beginning of the file and reads its way up to the record, one at a time. The system does not care what data values are stored in the fields within a record. In fact, sequential files do not use physical record keys; records are accessed in order of their appearance in the file. (For this reason, analysts refer to sequential files as non-keyed files.)

In contrast to sequential organization, processing a direct-access file does require the system to start at the first record in the file. Direct-access files are keyed files. They associate a record with a specific key value and a particular storage location. All records are stored by key at the address rather than by position; if the program knows the record key, it can determine the location address of a record and retrieve it independently of every other record in the file.

Direct addressing should have a data set with the following characteristics:

1. The key set (I.e., the range of key values assigned) is in a dense, ascending order with few unused values (unused values mean wasted storage space). Therefore few open gaps in the key values are wanted.
2. The record keys correspond to the numbers of the storage addresses: there is a storage address for each actual or possible key value in the file and there are no duplicate key values.

In a dense key list, for each key value there is a storage space with an address that is equivalent to the key. The key values are also in a close sequence; there are few skips in the sequence. This is important in the file design since, when storage is assigned for the file, it starts at the lowest value and extends to the highest key value. Skips in the range of keys results in wasted storage space. Storage must be allocated even though it will go unused.

Another problem prohibiting use of direct addressing arises when the keys for the records do not match storage addresses. Even if the analyst want to use direct addressing, it is impossible to do so if key values and addresses do not correspond. For example, if keys contain characters (e.g., a key of AB1CD), direct addressing is not possible, since there is no address for AB1CD.

When direct addressing is not possible but the direct access is necessary, the analyst specifies the alternative access method of hashing. Hashing (also called key transformation or randomizing) refers to the process of deriving a storage address from a record key. An algorithm (an arithmetic procedure) is devised to change a key value into another value that serves as a storage address.

Indexed Organization

The basic form of index includes a record key and the storage address for a record. To find a record when the storage address is unknown (as with direct address and hashing structures), it is necessary to scan the records. However, the search will be faster if an index is used, since it takes less time to search an index than an entire file of data.

An index is a separate file from the master file to which it pertains. (For this reason some of analysts refer to it as a detached index.) Each record in the index contains only two items of data: a record key and a storage address. (It does not duplicate each data item in the master file record.)

To find specific record when the file is stored under an indexed organization, this index is first searched to find the key of the record wanted. When it is found, the corresponding storage address is noted and then the program accesses the record directly. This method uses a sequential scan of the index, followed by direct access to the appropriate record. The index helps speed the search compared with a sequential file, but it is slower than direct addressing.

Section 5 - Learning Ability (Questions)

No. of Questions: 5
Duration in Minutes: 5

1) Indexed files can be:

- A) Sequential B) Non sequential C) Both A and B D) None of the options
-

2) Indexed search is used to find a file that the:

- A) Index has searched
B) Record key has searched
C) Corresponding storage contains
D) All the options
-

3) The easiest way to store and retrieve records in a file is:

- A) Sequential organization B) Direct access organization C) Hashing D) Indexed Organisation
-

4) Which of the following can be inferred from the passage?

- A) Sequential files don't assign addresses to records.
B) Sequential files assign addresses to records in a sequential way.
C) Sequential files assign addresses to records in a random way.
D) None of the options
-

5) The sentence "Direct-access files are keyed files" implies that:

- A) Every file has a key value associated with it
B) Every file has a particular storage position
C) Both A and B
D) None of the options
-

Written English Test – Instruction Sheet

No. of Questions: 1
Duration in Minutes: 5

- The duration of this exercise is 5 minutes.
- Write the e-mail in your own words. The email should be between 75-100 words. An e-mail less than 50 words & more than 125 words will not be evaluated.
- Your email will be evaluated on four parameters: Grammar, Content, Vocabulary, Spelling & Punctuation.
- Do not use short-forms (u, 2, gr8, comm.). Only accepted abbreviations are allowed (etc, asap, e.g., i.e.).
- Do not write in all upper case (“HI, I AM AN EXECUTIVE FROM ABC.”) or all lower case (“this is to inform you that i will do it.”). Appropriate case structure is important.
- Proper punctuation (full-stops, commas) is important.
- Spell correctly. Any deviation from the correct spelling is an error.
- Respond to the scenario using the details/information provided.
- Digression from the main points will be rated down.

ALL THE BEST!!!

Name: _____

MeritTrac ID No. _____

Company: Bluewater is a leading Internet bookstore. All orders placed on Bluewater are delivered within three days.

Scenario: A customer, John McNeal, has e-mailed you saying that he placed an order for "Who Moved My Cheese", a bestseller, on www.bluewater.com. However, even after 20 days, he has not received the book though it was promised that it would be shipped in three days. He is very angry and wants an explanation for the delay.

You have discovered that the book is out of stock, which is why it was not dispatched to the customer.

Task: In the space provided below, write an e-mail to John McNeal to communicate the reason for the delay and how you plan to set it right.

/6

/6

/6

/6

S/R