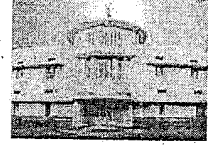


VISION IAS

www.visionias.cfsites.org
www.visionias.wordpress.com



ANSWER SHEET

Name of Candidate

K. R. Sai Krishnam Naidu

Test Code

M301

Subject

Psychology

Registration No.

EVALUATION INDICATORS

1. Alignment Competence
2. Context Competence
3. Content Competence
4. Language Competence
5. Introduction Competence
6. Structure – Presentation Competence
7. Conclusion Competence

INDEX TABLE

Q.No:	Page No.	Maximum Marks	Marks Obtained
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

Total Marks Obtained

Remarks :

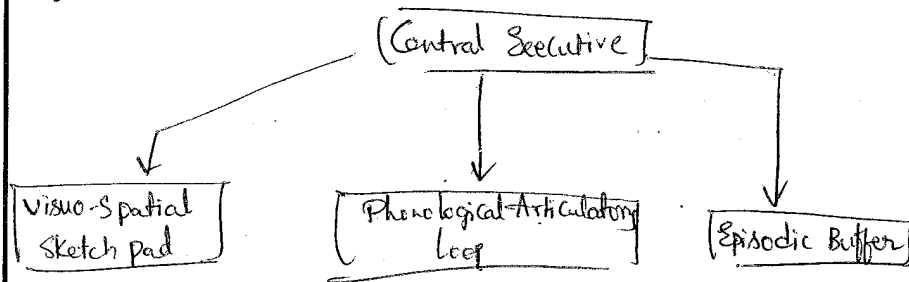
Signature of Examiner

INSTRUCTIONS:

1. Do furnish the appropriate details in the answer sheet (viz. Name, ID Number and Test Code)
2. The Candidate should fill the index table, especially for him/her.
3. In the left margin, she/he should write only question number and in the right margin, nothing should be written.
4. The page number should be coded by the candidate himself and the range of page number related to the answer of the question should be used to complete the index table.
5. All Parts of the questions should be written at one place.
6. No Supplementary sheet shall be provided by the management. So the candidate is advised to accommodate required information within the space provided.
7. The candidate need not write anything in his/her answer that derogates the dignity of an individual or an organization.
8. The candidate should respect the instructions, given by the invigilator.
9. The Examinee has to submit the answer sheet to the invigilator after completion of examination. However, he/she is allowed to take away the question paper.

3)a) At first to explain the functioning of how memory works, 'multistore' memory model was proposed. In this multistore model, the information is processed after the Sensory memory receptors recognise the stimulus. Then this information is sent to the Short Term Memory, which can actually store the memory between 18-30 secs depending on the Capability of the person. During this period the information is ~~either~~ maintained in the STM through either "Maintenance rehearsal" or "Elaborative rehearsal". In the former, the information is just maintained without any analysis but in the later the information is analysed so that it can be ~~more~~ better retained in the LTM. The main shortcoming of this model is that how can the same storey can perform the task of both "Processing" as well as "Storage" without any "Interference". It was also unable to explain how the initial stimuli had been stored into the LTM without any rehearsal, as this model says that memory can be stored in LTM only through "Rehearsal". Even it was also unable to explain how the information from different sensory modalities are ~~ret~~ stored and processed without any Interference.

To explain these shortcomings, working memory model was proposed. It is the elaborative explanation of STM. In this model, the working memory consists of



4 sub divisions of which Central Executive takes care of the Rest. It is not a storage device but just takes care of the direction & management of the different modality specific stimuli. This memory further consists of phonological articulatory loop where phonological ~~store~~ loop device stores information for 2 secs regarding the Acoustic Code. Articulatory loop is a rehearsal and recoding device. It can also convert the verbal information to Acoustic Code. ✖

Visuo Spatial Sketch pad consists of Iconic Storage, where as inner scribe in it carries the function of storage of sequence of frames of data. This also has specific functions regarding the way to store spatial data.

Episodic Buffer is a modality free storage device. It takes its prominence when other storage devices Articulatory phonological loop, Visuospatial sketch pads are completely filled with information. This Buffer has limited storage.

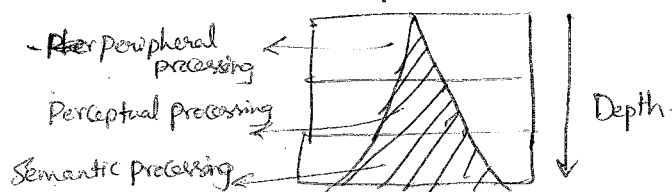
Hence, this working memory can now explain how the person is able to store and process information from different sensory units without any interference and how the data is being processed.

- b) Every stimuli present in the environment can be able to elicit response from the individual and the response elicited by the individual regarding a stimuli need not be the same. It depends on the way how the stimuli is

VISION IAS

Processed and related to the individual. This relatedness can be explained on the way how the individual had processed the data. This processing can be related to the Depth to which the stimuli had been processed.

As the levels of processing approach had been proposed on the lines on which the data had been processed by the individual, the recall of the stimuli can be related to the Semantic depth to which the data had been processed.



When the stimulus had been presented to the individual if he processes just on the peripheral issues like size, shape... then this information can at the maximum can be retained upto the 1st level of processing. If along with peripheral issues if the data had been processed on the perceptual issues like contrast, rhyming, similarity... then this data can be processed further deeper into the 2nd level. Along with this processing if the data had been processed regarding the meaning of the data then this will be deeply entrenched into the deeper Semantic levels of processing. Here the information is retained for longer period of time.

An experiment conducted by James et al in which different subjects of same age, schooling... were shown different sets of stimuli. In the 1st group, they were shown the stimuli regarding a pair of words and how they are related to other group of words. This relation was based on the pretext regarding size, shape, Capital letters --- In the 2nd group, they were also shown some words but here they were asked how these 2 groups are related to each other based on Rhyming. In the 3rd group they were given an incomplete sentence and were asked to fill with the set of relevant words given by the experimenter. After some time the experimenter had asked all the groups to recall those words which are earlier asked to relate. In this, the recall was superior in 3rd group & was inferior in the 1st group. From this experiment we can say that ~~top~~ recall of memory depends on the depth of the processed stimuli.

4) a) Any organism to survive in the environment has to process the information present in its surroundings. The survival rate is better for the species which process the information far better than others. This processing of information actually takes place in two forms namely Bottom-up Processing, Top-down processing.

The Bottom-up processing is ~~is~~ a "Data-driven" sort of processing where the organism takes all the data present in the environment and filters the information and slowly checks each and

every data present in the stimulus and chooses the one which is necessary to its survival: for eg. if the organism is hungry and don't know exactly what to eat to survive in the environment, it gathers all the available food like stimuli present in its surrounding and checks each and every thing and takes those things which are useful for its nourishment and leaves all those which are redundant. Now it had understood what to eat in the surrounding to satisfy its hunger.

Now, after sometime again the organism got hunger and searching for food. This time, the organism won't follow the earlier Bottom-up processing as it is tedious, labourious and puts a lot of cognitive strain to check each and every data. Now the processing being taken place in this situation is "Top-down" where in the organism had already formed the cognitive map and from this it can select the required stimuli. This sort of processing is ~~more~~ "Conceptually Driven". In this, the organism identifies the features earlier present to the food item of all the items available and labels it as "ready to eat stimulus" and selects it. This reduces a lot of cognitive strain and effort. - But the problem with this approach is that the concept formed by the individual ~~and~~ ~~it~~ is applied directly

and there can be a chance to get Confused or select some wrong stimuli based on only some features which are stored in the Concept .

- b) whenever the individual is confronted with some sort of problem in the environment, he tries to solve the problem either by the Cues available in his schemas or those present in the environment. But always all the problems can't be solved immediately. There can't be Readymade answer available to a particular problem. In this case, the individual has to meticulously plan the whole scenario to solve the problem. This can be achieved by defining the problem carefully. This whole exercise is carried out in the Problem space. Problem space is the way how the individual understands the problem, how he is designing and planning to solve the problem, what are the strategies being imparted by him to solve the problem. If the individual is clear in the problem space, the problem is half solved. But, many times the individual may not be properly able to solve the problem due to the incomplete or faulty problem space. This can happen due to the ~~man's~~ mental set of the individual, his emotional state, his knowledge base, Cultural factors But if the problem space is clearly defined,

it directs the individual throughout his problem solving process to solve the problem in less number of trials, saving money and time.

Whenever the individual is confronted with any novel problem, at first he try to solve it with all the information he had learnt and acquired from the surrounding, he thinks in different dimensions to solve the problem. Even after very long time, after investing all his cognitive abilities, time and effort he leaves the problem aside in order to get rid of the fatigue and frustration. Then begins the stage of "Incubation".

During the "Incubation" period, the "Churning" of the problem takes place in the Unconscious Continuously. During this time, he get rid of all the psychic realities present in his brain, which are obstructing him to think differently, Unconventionally, Divergently. All the real world barriers will get broken and the person will slowly enters into an "Out of box thinking mode". The earlier barriers present when consciously thought were all removed and now the person gets clear "Insight" into the problem to solve. In this way Incubation period helps a lot to solve novel problems. For eg. when "Kekule" was confronted to solve the puzzle regarding the "Benzene structure".

he had not been able to leap forward. But after months of Contemplation, he left the problem away and suddenly one day in his dreams he saw a snake biting its tail and then he woke up and had drawn the Benzene ring structure, which had revolutionised Organic Chemistry.

- 8) a) Creativity is the way of thinking in which the individual can solve the novel problems. It involves Out of box thinking. And the person who thinks creatively will have Flexibility, Originality, Redefinability i.e. the way to explain old things in new ways, expressionability. These people will have a sense of intrinsic motivation and are guided through Internal locus of Control. They are also emotionally stable and have a sense of "Selfworth" and ^{are} also bold in their decisions. They think the issues in a Divergent way.

From the above discussion, we can infer that in order to have such thinking, at first the individuals should have a sort of independence in their surroundings. If they are restricted and had not given ample freedom to explore, this may hamper the Creative thinking. The cultures which emphasize more on disciplining, formalness may actually impinge the freedom of the individual and this may have an emotional impact on the individual. If the child

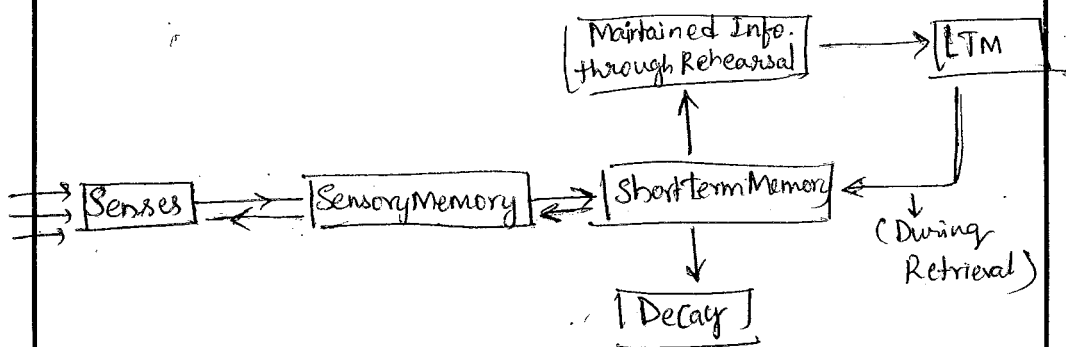
Rearing practices are Authoritarian and impulsive, the child may be inherently restricted in his thinking. Those cultures like the American culture which emphasize more on individualism puts the Individual as the centre of his life. So, the individual has to explore by himself regarding everything for his sustenance. During this exploration, he may have to confront many novel problems and he is on his own to solve them. Hence, this imparts in him a sort of independence, control over his environment and this also boosts his morale and, motivation and confidence. This locus of control will become internal. These all factors augment the Creative thinking.

Where as in Collective Cultures, family is the centre of the individual's life. Here the family related not only to his parents but also all other relatives. These all members drive the thinking process but putting some norms to which the individual has to abide by otherwise he might get some negative reinforcement or punishment. The individual lacks the sense of control over his environment and there is ^{not} also ~~set~~ any motivation to achieve or solve anything because the whole process of bringing up of the child is the responsi

-bility of the family rather than the child himself. So, there is hardly any stimulation to explore his environment. For eg. in many Gujarati families, the sort of motivation given to the child is more of monetary than intrinsic. This also hampers the creativity of the child.

Hence from the above discussion, we can say those cultures which provide independence, stimulation to explore, imparts intrinsic motivation, there is a high chance of increasing and fostering creativity in the individual.

- b) Information processing model of memory - proposes 3 stages of processing of information: In the 1st stage of processing of information, the stimulus present in the environment is absorbed by the "senses" available



to the individual and this data is taken from Senses through ~~be~~ neurons to the sensory memory, in which the Iconic memory, received through the sensing of eyes

Can be stayed upto 0.5 secs after which it will fade away or decays. ~~So~~ It also consists of storage facility to store the Echoic memory. which also gets faded away after 3-4 secs. ~~So~~ From this, the data enters into the Short Term Memory where the information can be maintained upto 30 secs after which the information can be faded away. This is a short term storage device. In this, the information can be further maintained without decay through "Rehearsal". After Rehearsal, the information present in this storage device enters into the Long Term Memory storage. This is a permanent memory storage where the information can be stored for large amount of time. The storage capacity of this device is unlimited. However, the retrieval of the stored data depends on the way how it is "encoded" and "arranged" in LTM. In this, the data be ~~retrieved~~ stored after the rehearsal of the trace of memory present in the STM.

mnemonic technique is the one in which the individual forms some sort of cues and encode the data into the Long term memory so that the data can be retrieved without any interference and attenuation of stored data. So, "Encoding" and "Semantic Restructuring" of the processed data is the

foremost important strategies involved in the Mnemonic techniques.

If we take the "method of loci" technique mnemonic, here the individual will have a visualisation of some pattern or location and "Encodes" the given data on the lines of these locations. Whenever he wants to retrieve a particular data, he just remembers the locations he encoded in his memory and from where he recalls all the data stored. In the meanwhile if the individual forgets any specific location of the "encoded data", the data relating to that ~~data~~ encoded location will be lost.

For eg. in the PQRST mnemonic (~~Preview, Question, Reads~~ the individual will 1st have a preview of the data, the Questions the relevance to him and then reads the whole content and then solves his previously aroused questions and then writes the Test to test his understanding capabilities. During this whole process of PQRST mnemonic, the individual slowly understands the meaning of the whole data and he will be able to organise it in a meaningful manner in his mind and this improves his ability to recall the data with ease.

1) a) Vigilance can be effected by the environmental factors. This results in lack of attention. ~~the~~ If the representing stimuli lacks "Distinctiveness" from the background, this will effect vigilance, the "Signal to Noise ratio" should be higher otherwise the individual may get Confused with the stimuli, the "rate of occurrence" of the stimuli should also be higher and if this rate is very less, then this results in fatigue to the individual to observe the stimulus. ~~The~~ More "Novel" the stimulus, this inculcates a sense of alertness in the individual so that he can be more vigilant, the ~~emotional~~ environment, if it is devoid of the above mentioned factors will lead to a sort of fatigue and decrease in attentiveness of the individual.

b) After the information is retrieved from the Sensory memory, it enters the STM where the data can be maintained at the maximum for 30secs. Here the data can be further maintained in the STM through

c) Perception is the way how the individual perceives the information through the thorough interaction of present situation and past experiences. Perceptual styles are the way how the individual perceives a particular stimuli depending on the abilities and his schemas already present in his memory. The individuals perceptual

Styles depend on the type of Processing he do. The Top down processing is based on the "Concepts" the individual has earlier formed in his schema's. Where as Bottomup Processing is a "Data driven" approach which meticulously scans all the data present in his environment and ~~test~~ perceives the situation. These aren't mutually exhaustive phenomena but act in unison. Along with this, individuals perceptual styles depend on his emotional state, mental set, context, Intellectuality ...

- d) 'Atkinson-shiffrin' model proposes 3 stage model of memory. The 1st stage consists of Sensory memory which gathers information from the available senses where the Iconic memory can be stored for upto 0.5 secs and Echoic memory can be stored for upto 2-3 secs. From here the data enters into STM where the data delays after 30 secs if no rehearsal of data takes place. If the data is further Rehearsed, it enters into the Long Term Memory ~~for~~ in which it is stored for long period of time and the storage capacity of this device is unlimited. The retrieval of the data can be dependent on the way how the information is processed and encoded in the LTM. The more better ~~the~~ data is processed more easier it is to retrieve the data.

e) plasticity of Perception refers to whether ~~the~~ perception of the individual can be changed or not. Von Senden had done research on those patients who were Surgeoned on the Cataract disease. These patients easily recognised the figure from the ground but were unable distinguish rectangle from triangle until they touched it. After some practice they can now easily found the difference. This shows that perception can be changed. @

On the otherhand, Gibson walk had conducted the "Visual Cliff" experiment in which the 55 day old child was asked to move towards his mother through a glass panel present over a deep pit. They observed an increase in the heart beat of the child when they saw the pit. This shows that Depth Perception is innate rather than acquire.

from the ~~above~~ experiment of "Rotating window" by Ames whose later brought the "Zulu" tribe subjects who are having spherical culture observed bizarre movement of the ball when they were left and used monocular cues but in rest of the cases they distinguished the effect. This shows that some of the perceptual features in the human brain are acquired where as some other are innate.

f) Computer Processing model of memory states that whole information is processed by the individual in a "Serial way". In this model, the information is analysed and categorised based on the perceptual features and also past experiences. At each level of the processing of data, the similarity with the already present conceptualisation of data is checked and it will be sorted out accordingly.

This model is criticized on the basis that information processed in the brain is parallel processing than "Sequential processing" and if the data has to be processed based on the perceptual features, it requires enormous amount of data in the brain to compare each and everything and puts a lot of cognitive strain and takes a lot of time from the individual but the response from the individual in many instances is spontaneous and based on probabilistic thinking in some instances.

5) b) Path dependence is nothing but giving hints to the problem solver to solve the problem. This hints can be either direct or through giving an elaborative feedback. This makes the problem solver to converge his thinking on some particular way and might not be able

to explore all other possibilities which might be useful in many other problems; But this will save time in solving the problem and also can give a sense of ~~the~~ motivation to solve many other problems as the problem solver had not undergone higher frustration and fatigue in confronting the problem. This may also condition the problem solver in such a way that he might not be solving the problem if no feedback or hints are given in latter problems.

c) The magical number seven, plus minus two is nothing but the way how "Chunking" takes place in the short term memory in processing the data. The STM can at the maximum can store 7 ± 2 chunks of data. For eg. in remembering or maintaining the telephone number by seeing a directory to dial the phone, we remember the telephone numbers in chunks so that a large data can be stored with the chunks. This reduces our cognitive strain in storing data into our memory.

d) While a decision is being made, the individual is confronted with many choices out of which he had to judge and weigh the alternatives and select the best. Cognitive inertia here defines the way how we try to make decisions on the data with which we are more familiar or with ~~with~~ which had some sort of

biasedness due to emotions or ~~to~~ mental set... This ~~hamp~~ is a sort of "priming" in which we tend to make choices on the limited processing of information. This may give us a sense of satisfaction or easiness in taking a decision but may hamper the whole Decision making process.

- d) Interference can be of two types. They are ProActive interference and Retroactive interference. In the proactive interference the earlier learned or seen stimuli will have an inhibitory or interfering effect on the latter learned or seen stimuli. Whereas in Retro Active interference the latter learned stimuli will have an ~~effe~~ inhibitory or interfering effect on the former.

In the Competitive interference for the advertised product, the interference can be due to both ProActive as well as Retroactive and the interference will be higher when the similarity between the Advertisements regarding the quality, quantity, price are moderately similar, which can be explained through Scagg Robinson Hypothesis. Since, highly non similar or highly similar Advertisements can be easily recalled the consumer, in the moderately

Similar advertisements, in the RetroActive Interference, there can be also the effect of "Unlearning" of the 1st Advertisement along with RetroActive interference resulting in further meek recall of the 1st Advertised Product. In such Circumstances, the Moderately similar 2nd Advertised product will ~~have~~ be purchased by the consumer due to its "Recency" effect.