Materials
For this paper you may have:
• a calculator.

Instructions
• Use black ink or black ball-point pen.
• Fill in the boxes at the bottom of this page.
• Answer all questions. You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
• Do all rough work in this book. Cross through any work you do not want to be marked.

Information
• The marks for questions are shown in brackets.
• The maximum mark for this paper is 72.
• Questions should be answered in continuous prose. You will be assessed on your ability to:
  - use good English
  - organise information clearly
  - use specialist vocabulary where appropriate.
Section A
Approaches in Psychology

Answer all questions in this section

0 1. 1 Complete the following sentence. Shade one box only.

Sensory neurons carry information

A away from the brain.
B both to and from the brain.
C towards the brain.
D within the brain.

[1 mark]

0 1. 2 Complete the following sentence. Shade one box only.

The somatic nervous system

A comprises of two sub-systems.
B connects the central nervous system and the senses.
C consists of the brain and spinal cord.
D controls involuntary responses.

[1 mark]
Which one of the following responses results from the action of the sympathetic division of the autonomic nervous system? Shade one box only.

A Decreased pupil size  
B Increased digestion  
C Increased heart rate  
D Increased salivation

[1 mark]

Label the two areas of the synapse in Figure 1 by putting the appropriate letter in each box.

A Axon  
B Dendrites  
C Neurotransmitters  
D Receptor sites  
E Vesicle

Figure 1: The synapse

[2 marks]
Psychologists investigating theoretical models of cognitive processing study human cognitive processing. They sometimes give participants problems to solve then ask them about the experience afterwards. Typical participant responses are as follows:

**Response A:** ‘There were too many things to think about at the same time.’

**Response B:** ‘I had to do one task at a time, then do the next task, and so on.’

Briefly suggest how each of these responses might inform psychologists investigating models of human cognitive processing. 

[2 marks]

A behaviourist researcher studying reinforcement carried out a laboratory experiment. He put a cat in a puzzle box. The cat was able to escape from the puzzle box by pulling on a string which opened the door. Each time the cat escaped it was given a food treat. At first, the cat escaped quite slowly, but with each attempt the escape time decreased.

Explain which type of conditioning is being investigated in this experiment?

[2 marks]
Read the item and then answer the questions that follow.

The data from the laboratory experiment are shown in Table 1.

**Table 1: Time taken for the cat to escape from the puzzle box**

<table>
<thead>
<tr>
<th>Attempt</th>
<th>Time taken for the cat to escape from the puzzle box (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>63</td>
</tr>
<tr>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>3</td>
<td>45</td>
</tr>
<tr>
<td>4</td>
<td>37</td>
</tr>
<tr>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

Calculate the mean time taken for the cat to escape from the puzzle box. Show your calculations.

[2 marks]

The researcher compared the time taken for the cat to escape at the first attempt, with the time taken for the eighth attempt. He found that after learning had taken place the cat’s escape time was:

A 9 times faster than it was at the start.

B 11 times faster than it was at the start.

C 15 times faster than it was at the start.

D 21 times faster than it was at the start.

[1 mark]
A psychologist carried out a study of social learning. As part of the procedure, he showed children aged 4-5 years a film of a 4 year-old boy stroking a puppy. Whilst the children watched the film, the psychologist commented on how kind the boy was. After the children had watched the film, the psychologist brought a puppy into the room and watched to see how the children behaved with the puppy.

Outline what is meant by social learning theory and explain how social learning might have occurred in the procedure described above. [6 marks]
Discuss **two** limitations of social learning theory. [6 marks]

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Extra space

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Turn over for the next question
Read the item and then answer the questions that follow.

Researchers analysed the behaviour of over 4000 pairs of twins. The results showed that the degree to which obsessive-compulsive disorder (OCD) is inherited is between 45% and 65%.

Distinguish between obsessions and compulsions. [2 marks]

With reference to the study described above, what do the results seem to show about possible influences on the development of OCD? [4 marks]
Read the item and then answer the question that follows.

Steven describes how he feels when he is in a public place.

‘I always have to look out for people who might be ill. If I come into contact with people who look ill, I think I might catch it and die. If someone starts to cough or sneeze then I have to get away and clean myself quickly.’

Outline one cognitive characteristic of OCD and one behavioural characteristic of OCD that can be identified from the description provided by Steven.

[2 marks]

Complete Figure 2, below, by filling in A and B, to show Beck’s negative triad as it is used to explain depression.

[2 marks]

Figure 2: Beck’s negative triad

Negative views about A

B

C the world

for example: ‘I am worthless’

for example: ‘I will never be any good at anything’

for example: ‘Nobody values me’
1 0 Briefly outline one strength of the cognitive explanation of depression. [2 marks]

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

1 1 Outline and evaluate the behavioural approach to treating phobias. [12 marks]

You may use this space to plan your answer.

________________________________________________________________________

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________________________________________________________________________

________________________________________________________________________
Extra space
A psychologist wanted to see if creativity is affected by the presence of other people. To test this he arranged for 30 people to participate in a study that involved generating ideas for raising funds for a local youth club. Participants were randomly allocated to one of two conditions.

**Condition A**: there were 15 participants in this condition. Each participant was placed separately in a room and was given 40 minutes to think of as many ideas as possible for raising funds for a local youth club. The participant was told to write down his or her ideas and these were collected in by the psychologist at the end of the 40 minutes.

**Condition B**: there were 15 participants in this condition. The participants were randomly allocated to 5 groups of equal size. Each group was given 40 minutes to think of as many ideas as possible for raising funds for a local youth club. Each group was told to write down their ideas and these were collected by the psychologist at the end of the 40 minutes.

The psychologist counted the number of ideas generated by the participants in both conditions and calculated the total number of ideas for each condition.

**Table 2: Total number of ideas generated in Condition A (when working alone) and in Condition B (when working in a group)**

<table>
<thead>
<tr>
<th></th>
<th>Condition A Working alone</th>
<th>Condition B Working in a group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of ideas generated</td>
<td>110</td>
<td>75</td>
</tr>
</tbody>
</table>

Identify the experimental design used in this study and outline one advantage of this experimental design.

[3 marks]
Describe one other experimental design that researchers use in psychology. [2 marks]

Apart from using random allocation, suggest one way in which the psychologist might have improved this study by controlling for the effects of extraneous variables. Justify your answer. [2 marks]

Write a suitable hypothesis for this study. [3 marks]

From the information given in the description, calculate the number of participants in each group in Condition B. [1 mark]
Read the item and then answer the questions that follow.

The psychologist noticed that the number of ideas generated by each of the individual participants in Condition A varied enormously whereas there was little variation in performance between the 5 groups in Condition B. He decided to calculate a measure of dispersion for each condition.

1. Name a measure of dispersion the psychologist could use. [1 mark]

2. The psychologist uses the measure of dispersion you have named in your answer to question 12.6. State how the result for each condition would differ. [1 mark]

3. Explain how the psychologist could have used random allocation to assign the 15 participants in Condition B into the 5 groups. [3 marks]
Read the item and then answer the questions that follow.

This is a repeat of information given on page 12.

Table 2: Total number of ideas generated in Condition A (when working alone) and in Condition B (when working in a group)

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</tbody>
</table>

Using the information given in Table 2, explain how the psychologist could further analyse the data using percentages.

[2 marks]

Section C continues on the next page
At the end of the study the psychologist debriefed each participant. Write a debriefing that the psychologist could read out to the participants in Condition A. [6 marks]

Extra space

END OF QUESTIONS