Write your name here

| Surname | Other names |
|---|---|
| | |

**Pearson Edexcel**
**Level 3 GCE**

| Centre Number | Candidate Number |
|---|---|
| | |

# Psychology

## Advanced
## Paper 2: Applications of psychology

Sample assessment materials for first teaching
September 2015
**Time: 2 hours**

Paper Reference
**9PS0/02**

**You do not need any other materials.**

Total Marks

## Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer ALL questions in Section **A**. Answer ALL questions from **one** of the three options in Section **B**.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

## Information

- The total mark for this paper is 90.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- The list of formulae and critical value tables are printed at the start of this paper.
- Candidates may use a calculator.

## Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

*Turn over* ▶

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PEARSON

## FORMULAE AND CRITICAL VALUE TABLES

**Standard deviation (sample estimate)**

$$\sqrt{\left(\frac{\sum(x-\bar{x})^2}{n-1}\right)}$$

**Spearman's rank correlation coefficient**

$$1-\frac{6\sum d^2}{n(n^2-1)}$$

**Critical values for Spearman's rank**

| | Level of significance for a one-tailed test | | | | |
|---|---|---|---|---|---|
| | **0.05** | **0.025** | **0.01** | **0.005** | **0.0025** |
| | **Level of significance for a two-tailed test** | | | | |
| *N* | **0.10** | **0.05** | **0.025** | **0.01** | **0.005** |
| **5** | 0.900 | 1.000 | 1.000 | 1.000 | 1.000 |
| **6** | 0.829 | 0.886 | 0.943 | 1.000 | 1.000 |
| **7** | 0.714 | 0.786 | 0.893 | 0.929 | 0.964 |
| **8** | 0.643 | 0.738 | 0.833 | 0.881 | 0.905 |
| **9** | 0.600 | 0.700 | 0.783 | 0.833 | 0.867 |
| **10** | 0.564 | 0.648 | 0.745 | 0.794 | 0.830 |
| **11** | 0.536 | 0.618 | 0.709 | 0.755 | 0.800 |
| **12** | 0.503 | 0.587 | 0.678 | 0.727 | 0.769 |
| **13** | 0.484 | 0.560 | 0.648 | 0.703 | 0.747 |
| **14** | 0.464 | 0.538 | 0.626 | 0.679 | 0.723 |
| **15** | 0.446 | 0.521 | 0.604 | 0.654 | 0.700 |
| **16** | 0.429 | 0.503 | 0.582 | 0.635 | 0.679 |
| **17** | 0.414 | 0.485 | 0.566 | 0.615 | 0.662 |
| **18** | 0.401 | 0.472 | 0.550 | 0.600 | 0.643 |
| **19** | 0.391 | 0.460 | 0.535 | 0.584 | 0.628 |
| **20** | 0.380 | 0.447 | 0.520 | 0.570 | 0.612 |
| **21** | 0.370 | 0.435 | 0.508 | 0.556 | 0.599 |
| **22** | 0.361 | 0.425 | 0.496 | 0.544 | 0.586 |
| **23** | 0.353 | 0.415 | 0.486 | 0.532 | 0.573 |
| **24** | 0.344 | 0.406 | 0.476 | 0.521 | 0.562 |
| **25** | 0.337 | 0.398 | 0.466 | 0.511 | 0.551 |
| **26** | 0.331 | 0.390 | 0.457 | 0.501 | 0.541 |
| **27** | 0.324 | 0.382 | 0.448 | 0.491 | 0.531 |
| **28** | 0.317 | 0.375 | 0.440 | 0.483 | 0.522 |
| **29** | 0.312 | 0.368 | 0.433 | 0.475 | 0.513 |
| **30** | 0.306 | 0.362 | 0.425 | 0.467 | 0.504 |

**The calculated value must be equal to or exceed the critical value in this table for significance to be shown.**

**Chi squared distribution formula**

$$X^2 = \sum \frac{(O-E)^2}{E} \qquad df = (r-1)(c-1)$$

**Critical values for chi-squared distribution**

| | Level of significance for a one-tailed test | | | | | |
|---|---|---|---|---|---|---|
| | **0.10** | **0.05** | **0.025** | **0.01** | **0.005** | **0.0005** |
| | **Level of significance for a two-tailed test** | | | | | |
| **df** | **0.20** | **0.10** | **0.05** | **0.025** | **0.01** | **0.001** |
| **1** | 1.64 | 2.71 | 3.84 | 5.02 | 6.64 | 10.83 |
| **2** | 3.22 | 4.61 | 5.99 | 7.38 | 9.21 | 13.82 |
| **3** | 4.64 | 6.25 | 7.82 | 9.35 | 11.35 | 16.27 |
| **4** | 5.99 | 7.78 | 9.49 | 11.14 | 13.28 | 18.47 |
| **5** | 7.29 | 9.24 | 11.07 | 12.83 | 15.09 | 20.52 |
| **6** | 8.56 | 10.65 | 12.59 | 14.45 | 16.81 | 22.46 |
| **7** | 9.80 | 12.02 | 14.07 | 16.01 | 18.48 | 24.32 |
| **8** | 11.03 | 13.36 | 15.51 | 17.54 | 20.09 | 26.12 |
| **9** | 12.24 | 14.68 | 16.92 | 19.02 | 21.67 | 27.88 |
| **10** | 13.44 | 15.99 | 18.31 | 20.48 | 23.21 | 29.59 |
| **11** | 14.63 | 17.28 | 19.68 | 21.92 | 24.73 | 31.26 |
| **12** | 15.81 | 18.55 | 21.03 | 23.34 | 26.22 | 32.91 |
| **13** | 16.99 | 19.81 | 22.36 | 24.74 | 27.69 | 34.53 |
| **14** | 18.15 | 21.06 | 23.69 | 26.12 | 29.14 | 36.12 |
| **15** | 19.31 | 22.31 | 25.00 | 27.49 | 30.58 | 37.70 |
| **16** | 20.47 | 23.54 | 26.30 | 28.85 | 32.00 | 39.25 |
| **17** | 21.62 | 24.77 | 27.59 | 30.19 | 33.41 | 40.79 |
| **18** | 22.76 | 25.99 | 28.87 | 31.53 | 34.81 | 42.31 |
| **19** | 23.90 | 27.20 | 30.14 | 32.85 | 36.19 | 43.82 |
| **20** | 25.04 | 28.41 | 31.41 | 34.17 | 37.57 | 45.32 |
| **21** | 26.17 | 29.62 | 32.67 | 35.48 | 38.93 | 46.80 |
| **22** | 27.30 | 30.81 | 33.92 | 36.78 | 40.29 | 48.27 |
| **23** | 28.43 | 32.01 | 35.17 | 38.08 | 41.64 | 49.73 |
| **24** | 29.55 | 33.20 | 36.42 | 39.36 | 42.98 | 51.18 |
| **25** | 30.68 | 34.38 | 37.65 | 40.65 | 44.31 | 52.62 |
| **26** | 31.80 | 35.56 | 38.89 | 41.92 | 45.64 | 54.05 |
| **27** | 32.91 | 36.74 | 40.11 | 43.20 | 46.96 | 55.48 |
| **28** | 34.03 | 37.92 | 41.34 | 44.46 | 48.28 | 56.89 |
| **29** | 35.14 | 39.09 | 42.56 | 45.72 | 49.59 | 58.30 |
| **30** | 36.25 | 40.26 | 43.77 | 46.98 | 50.89 | 59.70 |
| **40** | 47.27 | 51.81 | 55.76 | 59.34 | 63.69 | 73.40 |
| **50** | 58.16 | 63.17 | 67.51 | 71.42 | 76.15 | 86.66 |
| **60** | 68.97 | 74.40 | 79.08 | 83.30 | 88.38 | 99.61 |
| **70** | 79.72 | 85.53 | 90.53 | 95.02 | 100.43 | 112.32 |

**The calculated value must be equal to or exceed the critical value in this table for significance to be shown.**

**Mann-Whitney U test formulae**

$$U_a = n_a n_b + \frac{n_a(n_a+1)}{2} - \sum R_a$$

$$U_b = n_a n_b + \frac{n_b(n_b+1)}{2} - \sum R_b$$

**(U is the smaller of $U_a$ and $U_b$)**

**Critical values for the Mann-Whitney U test**

| $N_a$ \ $N_b$ | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***p* ≤ 0.05 (one-tailed), *p* ≤ 0.10 (two-tailed)** | | | | | | | | | | | | | | | | |
| **5** | 4 | 5 | 6 | 8 | 9 | 11 | 12 | 13 | 15 | 16 | 18 | 19 | 20 | 22 | 23 | 25 |
| **6** | 5 | 7 | 8 | 10 | 12 | 14 | 16 | 17 | 19 | 21 | 23 | 25 | 26 | 28 | 30 | 32 |
| **7** | 6 | 8 | 11 | 13 | 15 | 17 | 19 | 21 | 24 | 26 | 28 | 30 | 33 | 35 | 37 | 39 |
| **8** | 8 | 10 | 13 | 15 | 18 | 20 | 23 | 26 | 28 | 31 | 33 | 36 | 39 | 41 | 44 | 47 |
| **9** | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 | 45 | 48 | 51 | 54 |
| **10** | 11 | 14 | 17 | 20 | 24 | 27 | 31 | 34 | 37 | 41 | 44 | 48 | 51 | 55 | 58 | 62 |
| **11** | 12 | 16 | 19 | 23 | 27 | 31 | 34 | 38 | 42 | 46 | 50 | 54 | 57 | 61 | 65 | 69 |
| **12** | 13 | 17 | 21 | 26 | 30 | 34 | 38 | 42 | 47 | 51 | 55 | 60 | 64 | 68 | 72 | 77 |
| **13** | 15 | 19 | 24 | 28 | 33 | 37 | 42 | 47 | 51 | 56 | 61 | 65 | 70 | 75 | 80 | 84 |
| **14** | 16 | 21 | 26 | 31 | 36 | 41 | 46 | 51 | 56 | 61 | 66 | 71 | 77 | 82 | 87 | 92 |
| **15** | 18 | 23 | 28 | 33 | 39 | 44 | 50 | 55 | 61 | 66 | 72 | 77 | 83 | 88 | 94 | 100 |
| **16** | 19 | 25 | 30 | 36 | 42 | 48 | 54 | 60 | 65 | 71 | 77 | 83 | 89 | 95 | 101 | 107 |
| **17** | 20 | 26 | 33 | 39 | 45 | 51 | 57 | 64 | 70 | 77 | 83 | 89 | 96 | 102 | 109 | 115 |
| **18** | 22 | 28 | 35 | 41 | 48 | 55 | 61 | 68 | 75 | 82 | 88 | 95 | 102 | 109 | 116 | 123 |
| **19** | 23 | 30 | 37 | 44 | 51 | 58 | 65 | 72 | 80 | 87 | 94 | 101 | 109 | 116 | 123 | 130 |
| **20** | 25 | 32 | 39 | 47 | 54 | 62 | 69 | 77 | 84 | 92 | 100 | 107 | 115 | 123 | 130 | 138 |

| $N_a$ \ $N_b$ | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***p* ≤ 0.01 (one-tailed), *p* ≤ 0.02 (two-tailed)** | | | | | | | | | | | | | | | | |
| **5** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| **6** | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 11 | 12 | 13 | 15 | 16 | 18 | 19 | 20 | 22 |
| **7** | 3 | 4 | 6 | 7 | 9 | 11 | 12 | 14 | 16 | 17 | 19 | 21 | 23 | 24 | 26 | 28 |
| **8** | 4 | 6 | 7 | 9 | 11 | 13 | 15 | 17 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 |
| **9** | 5 | 7 | 9 | 11 | 14 | 16 | 18 | 21 | 23 | 26 | 28 | 31 | 33 | 36 | 38 | 40 |
| **10** | 6 | 8 | 11 | 13 | 16 | 19 | 22 | 24 | 27 | 30 | 33 | 36 | 38 | 41 | 44 | 47 |
| **11** | 7 | 9 | 12 | 15 | 18 | 22 | 25 | 28 | 31 | 34 | 37 | 41 | 44 | 47 | 50 | 53 |
| **12** | 8 | 11 | 14 | 17 | 21 | 24 | 28 | 31 | 35 | 38 | 42 | 46 | 49 | 53 | 56 | 60 |
| **13** | 9 | 12 | 16 | 20 | 23 | 27 | 31 | 35 | 39 | 43 | 47 | 51 | 55 | 59 | 63 | 67 |
| **14** | 10 | 13 | 17 | 22 | 26 | 30 | 34 | 38 | 43 | 47 | 51 | 56 | 60 | 65 | 69 | 73 |
| **15** | 11 | 15 | 19 | 24 | 28 | 33 | 37 | 42 | 47 | 51 | 56 | 61 | 66 | 70 | 75 | 80 |
| **16** | 12 | 16 | 21 | 26 | 31 | 36 | 41 | 46 | 51 | 56 | 61 | 66 | 71 | 76 | 82 | 87 |
| **17** | 13 | 18 | 23 | 28 | 33 | 38 | 44 | 49 | 55 | 60 | 66 | 71 | 77 | 82 | 88 | 93 |
| **18** | 14 | 19 | 24 | 30 | 36 | 41 | 47 | 53 | 59 | 65 | 70 | 76 | 82 | 88 | 94 | 100 |
| **19** | 15 | 20 | 26 | 32 | 38 | 44 | 50 | 56 | 63 | 69 | 75 | 82 | 88 | 94 | 101 | 107 |
| **20** | 16 | 22 | 28 | 34 | 40 | 47 | 53 | 60 | 67 | 73 | 80 | 87 | 93 | 100 | 107 | 114 |

**$N_b$**

| $N_a$ | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***p* ≤ 0.025 (one-tailed), *p* ≤ 0.05 (two-tailed)** | | | | | | | | | | | | | | | | |
| **5** | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 11 | 12 | 13 | 14 | 15 | 17 | 18 | 19 | 20 |
| **6** | 3 | 5 | 6 | 8 | 10 | 11 | 13 | 14 | 16 | 17 | 19 | 21 | 22 | 24 | 25 | 27 |
| **7** | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 |
| **8** | 6 | 8 | 10 | 13 | 15 | 17 | 19 | 22 | 24 | 26 | 29 | 31 | 34 | 36 | 38 | 41 |
| **9** | 7 | 10 | 12 | 15 | 17 | 20 | 23 | 26 | 28 | 31 | 34 | 37 | 39 | 42 | 45 | 48 |
| **10** | 8 | 11 | 14 | 17 | 20 | 23 | 26 | 29 | 33 | 36 | 39 | 42 | 45 | 48 | 52 | 55 |
| **11** | 9 | 13 | 16 | 19 | 23 | 26 | 30 | 33 | 37 | 40 | 44 | 47 | 51 | 55 | 58 | 62 |
| **12** | 11 | 14 | 18 | 22 | 26 | 29 | 33 | 37 | 41 | 45 | 49 | 53 | 57 | 61 | 65 | 69 |
| **13** | 12 | 16 | 20 | 24 | 28 | 33 | 37 | 41 | 45 | 50 | 54 | 59 | 63 | 67 | 72 | 76 |
| **14** | 13 | 17 | 22 | 26 | 31 | 36 | 40 | 45 | 50 | 55 | 59 | 64 | 67 | 74 | 78 | 83 |
| **15** | 14 | 19 | 24 | 29 | 34 | 39 | 44 | 49 | 54 | 59 | 64 | 70 | 75 | 80 | 85 | 90 |
| **16** | 15 | 21 | 26 | 31 | 37 | 42 | 47 | 53 | 59 | 64 | 70 | 75 | 81 | 86 | 92 | 98 |
| **17** | 17 | 22 | 28 | 34 | 39 | 45 | 51 | 57 | 63 | 67 | 75 | 81 | 87 | 93 | 99 | 105 |
| **18** | 18 | 24 | 30 | 36 | 42 | 48 | 55 | 61 | 67 | 74 | 80 | 86 | 93 | 99 | 106 | 112 |
| **19** | 19 | 25 | 32 | 38 | 45 | 52 | 58 | 65 | 72 | 78 | 85 | 92 | 99 | 106 | 113 | 119 |
| **20** | 20 | 27 | 34 | 41 | 48 | 55 | 62 | 69 | 76 | 83 | 90 | 98 | 105 | 112 | 119 | 127 |

**$N_b$**

| $N_a$ | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***p* ≤ 0.005 (one-tailed), *p* ≤ 0.01 (two-tailed)** | | | | | | | | | | | | | | | | |
| **5** | 0 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| **6** | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | 12 | 13 | 15 | 16 | 17 | 18 |
| **7** | 1 | 3 | 4 | 6 | 7 | 9 | 10 | 12 | 13 | 15 | 16 | 18 | 19 | 21 | 22 | 24 |
| **8** | 2 | 4 | 6 | 7 | 9 | 11 | 13 | 15 | 17 | 18 | 20 | 22 | 24 | 26 | 28 | 30 |
| **9** | 3 | 5 | 7 | 9 | 11 | 13 | 16 | 18 | 20 | 22 | 24 | 27 | 29 | 31 | 33 | 36 |
| **10** | 4 | 6 | 9 | 11 | 13 | 16 | 18 | 21 | 24 | 26 | 29 | 31 | 34 | 37 | 39 | 42 |
| **11** | 5 | 7 | 10 | 13 | 16 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 | 45 | 48 |
| **12** | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 31 | 34 | 37 | 41 | 44 | 47 | 51 | 54 |
| **13** | 7 | 10 | 13 | 17 | 20 | 24 | 27 | 31 | 34 | 38 | 42 | 45 | 49 | 53 | 56 | 60 |
| **14** | 7 | 11 | 15 | 18 | 22 | 26 | 30 | 34 | 38 | 42 | 46 | 50 | 54 | 58 | 63 | 67 |
| **15** | 8 | 12 | 16 | 20 | 24 | 29 | 33 | 37 | 42 | 46 | 51 | 55 | 60 | 64 | 69 | 73 |
| **16** | 9 | 13 | 18 | 22 | 27 | 31 | 36 | 41 | 45 | 50 | 55 | 60 | 65 | 70 | 74 | 79 |
| **17** | 10 | 15 | 19 | 24 | 29 | 34 | 39 | 44 | 49 | 54 | 60 | 65 | 70 | 75 | 81 | 86 |
| **18** | 11 | 16 | 21 | 26 | 31 | 37 | 42 | 47 | 53 | 58 | 64 | 70 | 75 | 81 | 87 | 92 |
| **19** | 12 | 17 | 22 | 28 | 33 | 39 | 45 | 51 | 56 | 63 | 69 | 74 | 81 | 87 | 93 | 99 |
| **20** | 13 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 67 | 73 | 79 | 86 | 92 | 99 | 105 |

**The calculated value must be equal to or less than the critical value in this table for significance to be shown.**

**Wilcoxon Signed Ranks test process**

- Calculate the difference between two scores by taking one from the other
- Rank the differences giving the smallest difference Rank 1

  Note: do not rank any differences of 0 and when adding the number of scores, do not count those with a difference of 0, and ignore the signs when calculating the difference
- Add up the ranks for positive differences
- Add up the ranks for negative differences
- T is the figure that is the smallest when the ranks are totalled (may be positive or negative)
- N is the number of scores left, ignore those with 0 difference

**Critical values for the Wilcoxon Signed Ranks test**

| | **Level of significance for a one-tailed test** | | |
|---|---|---|---|
| | 0.05 | 0.025 | 0.01 |
| | **Level of significance for a two-tailed test** | | |
| ***n*** | 0.1 | 0.05 | 0.02 |
| N=5 | 0 | - | - |
| 6 | 2 | 0 | - |
| 7 | 3 | 2 | 0 |
| 8 | 5 | 3 | 1 |
| 9 | 8 | 5 | 3 |
| 10 | 11 | 8 | 5 |
| 11 | 13 | 10 | 7 |
| 12 | 17 | 13 | 9 |

**The calculated value must be equal to or less than the critical value in this table for significance to be shown.**

## SECTION A: CLINICAL PSYCHOLOGY

**Answer ALL questions.**

**1** (a) Describe **one** symptom of schizophrenia.

**(2)**

(b) Describe an issue associated with making a valid diagnosis of schizophrenia.

**(3)**

**(Total for Question 1 = 5 marks)**

**2** Alex has been asked to take part in a longitudinal study of the relationship between mothers with a social phobia and elements of social phobia in their children.

(a) Describe a suitable longitudinal procedure for this study.

**(2)**

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(b) Describe an appropriate sampling technique for this longitudinal study looking at the relationship between mothers and their children in relation tosocial phobias.

**(3)**

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**(Total for Question 2 = 5 marks)**

**3** A group of researchers is conducting research into anxiety among adults. The researchers believe that negative life events may be a cause of anxiety. They have asked people with anxiety to record the number of positive and negative life events they have experienced over the last 12 months.

Examples of events participants were asked to consider included marriage/divorce, promotion/losing a job, moving home/losing a house, bereavement and births.

The participants provided a total score for both positive and negative life events. The results are presented in **Table 1**.

| | **Positive life events** | **Negative life events** |
|---|---|---|
| Participant A | 3 | 6 |
| Participant B | 1 | 5 |
| Participant C | 2 | 1 |
| Participant D | 0 | 9 |
| Participant E | 1 | 8 |
| Participant F | 2 | 6 |
| Participant G | 4 | 6 |
| Participant H | 3 | 11 |
| Participant I | 4 | 9 |
| Participant J | 2 | 12 |
| Mean | 2.2 | 7.3 |

**Table 1**

(a) (i) Calculate the standard deviation for negative life events. Show your working and give your answer to two significant figures.

**(4)**

(ii) State how the standard deviation for positive life events would differ from the negative life events you have calculated.

**(1)**

(b) When using a Wilcoxon Test to compare the positive and negative life events, the calculated value (T) was 1 (T=1).

The critical value table can be found in the formulae and statistics table at the front of the paper.

Explain whether these results were significant at $p<0.05$ and if the research hypothesis can be accepted.

**(3)**

**(Total for Question 3 = 8 marks)**

**4** If a person visited two different psychiatrists, they might receive two different diagnoses of their medical condition.

Assess the reliability of mental disorder diagnosis using research evidence.

**(Total for Question 4 = 8 marks)**

**5** A news article has criticised the effectiveness of psychological treatment. The headline was 'Psychological treatments for mental disorders do not work as these disorders are not psychological in origin'.

For a mental disorder other than schizophrenia, use your knowledge of the possible explanations of its causes to assess how effective a psychological treatment would be compared to a biological treatment.

**(Total for Question 5 = 8 marks)**

**6** Evaluate the view that schizophrenia has a stronger biological basis than other mental disorders.

Refer to **one** other mental disorder in your response.

**(20)**

**(Total for Question 6 = 20 marks)**

**TOTAL FOR SECTION A = 54 MARKS**

**SECTION B**

**Answer questions from ONE option in this section.**

**OPTION 1: CRIMINOLOGICAL PSYCHOLOGY**

**Answer ALL questions.**

**7** The concept of weapon focus is often relevant during eyewitness testimony.

(a) Explain how weapon focus affects eyewitness testimony.

**(3)**

(b) Apart from weapon focus, explain how **one** other factor affects eyewitness testimony.

**(3)**

**(Total for Question 7 = 6 marks)**

**8** A group of students have been having difficulties in managing their anger and were advised to attend an anger-management programme. They completed an anger assessment before and after attending the anger-management programme. Researchers wanted to see if there were gender differences in the effectiveness of the programme. The anger assessment results for males and females are presented in **Table 2**.

| | **Before treatment** | **After treatment** |
|---|---|---|
| **Males** | 42 | 10 |
| **Females** | 35 | 12 |

**Table 2**

(a) Calculate chi-squared for this data by completing **Table 3**.

**(4)**

| | | **Observed** | **Expected** | **O-E** | **$(O-E)^2$** | **$(O-E)^2/E$** |
|---|---|---|---|---|---|---|
| **Males** | **Before** | 42 | 40.4 | | | |
| | **After** | 10 | 11.6 | | | |
| **Females** | **Before** | 35 | 36.6 | | | |
| | **After** | 12 | 10.4 | | | |
| | | | | | **chi-squared =** | |

**Table 3**

(b) Analyse the results of the chi-squared test to show whether there were gender differences in how well the treatment worked.

**(2)**

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**(Total for Question 8 = 6 marks)**

**9** Pete is 24 years old and has a long criminal history, including burglary, theft and drug-related offences.

Pete has spent most of his life living alone with his mother. His father is currently in prison for committing a burglary. At age 15 Pete dropped out of school, preferring to socialise with friends and play truant.

Discuss Pete's behaviour using explanations from social psychology. You must make reference to the context in your answer.

**(Total for Question 9 = 8 marks)**

**10** Juries are used in criminal trials to determine an individual's guilt or innocence. Juries can be influenced by factors other than the evidence presented.

On 2nd September 2014 at a Crown Court in England two trials were proceeding.

The first was of a 24-year-old female fashion model.

The other was of a 64-year-old businessman.

They have both been accused of assaulting their respective partners.

Assess how characteristics of these defendants may affect the judgements of the juries during these two criminal trials. You must make reference to the context in your answer.

**(16)**

**(Total for Question 10 = 16 marks)**

**TOTAL FOR SECTION B: OPTION 1 = 36 MARKS**

## OPTION 2: CHILD PSYCHOLOGY

**Answer ALL questions.**

**11** The study by van IJzendoorn and Kroonenberg (1988) used a meta-analysis to look at cross-cultural differences in attachment types amongst children.

Explain **one** advantage of using a meta-analysis instead of a single study.

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**(Total for Question 11 = 2 marks)**

**12** Sumita gathered quantitative data by tallying how often a boy and a girl chose to play inside or outside in a nursery setting. Sumita decided to observe the first boy and the first girl that she saw go outside. There were 20 children in total in the nursery. Sumita observed the boy and girl over a 60-minute period. The children were both four years old.

Sumita made a tally mark every five minutes for each child to show whether the child was playing outside or inside. The data is displayed in **Table 4**.

| | **Playing outside** | **Playing inside** | **Totals** |
|---|---|---|---|
| **Boy** | 9 | 3 | 12 |
| **Girl** | 6 | 6 | 12 |

**Table 4**

(a) Calculate chi-squared for this data by completing **Table 5**.

**(4)**

| | | **Observed** | **Expected** | **O–E** | **$(O–E)^2$** | **$(O–E)^2/e$** |
|---|---|---|---|---|---|---|
| **Boy** | **IN** | **9** | **7.5** | | | |
| | **OUT** | **3** | **4.5** | | | |
| **Girl** | **IN** | **6** | **7.5** | | | |
| | **OUT** | **6** | **4.5** | | | |
| | | | | | **chi-squared =** | |

**Table 5**

(b) Analyse the results of the chi-squared test to explain what they show about whether boys or girls preferred to play inside or outside.

**(2)**

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.....

**(Total for Question 12 = 6 marks)**

**13** Ainsworth used the 'strange situation' procedure to develop ideas about attachment types between infants and their caregivers.

(a) (i) Describe the behaviour of the Type A/anxious-avoidant type as defined by Ainsworth.

**(2)**

(ii) Describe the behaviour of the Type B/secure attachment type as defined by Ainsworth.

**(2)**

(b) Anika is two and a half years old and has emigrated to the UK from Germany with her parents. Hideki is also two and a half and has emigrated from Japan with his mother who is a single parent.

Discuss the usefulness of the 'strange situation' procedure to investigate the attachment types of these two children. You must make reference to the context in your answer.

**(8)**

**(Total for Question 13 = 12 marks)**

**14** A recent television news broadcast reported that 'autism begins long before birth'. The broadcast covered the story of non-identical twins Thomas and Jessica.

They were born slightly prematurely with Jessica's birth being normal but Thomas's being complicated. When the twins were due to begin primary school, Jessica started to show signs of autism and was diagnosed as such but Thomas was not.

To what extent do you agree with the broadcast about Thomas and Jessica that autism is determined before a child is born? You must make reference to the context in your answer.

**(16)**

**(Total for Question 14 = 16 marks)**

**TOTAL FOR SECTION B: OPTION 2 = 36 MARKS**

## OPTION 3: HEALTH PSYCHOLOGY

**Answer ALL questions.**

**15** Temi works at a research laboratory. She is testing a new drug to see how effective it is in reducing withdrawal symptoms for nicotine addicts. Temi's research is in the first stages of development, so she has to use rats at this stage.

Temi used 10 nicotine-addicted rats. Five were given the new drug and five were in the control group. Temi has suggested that the rats given the new drug will show fewer withdrawal symptoms than the control group.

Temi decided to perform a Mann Whitney U test to find out whether the drug had a significant effect on withdrawal symptoms. **Table 6** shows the ranked results.

(a) Complete **Table 6** and calculate Mann Whitney U for the data in **Table 6**.

**(4)**

| **Control Group** | | **Experimental Group** | |
|---|---|---|---|
| **Number of symptoms after the drug** | **Rank** | **Number of symptoms after the drug** | **Rank** |
| 8 | 10.0 | 4 | 3.5 |
| 6 | 6.5 | 7 | 8.5 |
| 4 | 3.5 | 2 | 2.0 |
| 7 | 8.5 | 5 | 5.0 |
| 6 | 6.5 | 1 | 1.0 |
| **Total** | | **Total** | |

**Table 6**

$U_a$ = .....

$U_b$ = .....

U = .....

(b) Using the critical values for Mann Whitney U, explain how effective the drug is in reducing withdrawal symptoms.

**(2)**

(c) Describe the ethics that need to be considered when carrying out experiments on animals.

**(2)**

**(Total for Question 15 = 8 marks)**

**16** Describe aversion therapy as a treatment for alcohol misuse.

**(Total for Question 16 = 4 marks)**

**17** Sarah is addicted to nicotine and has decided that she wants to stop smoking. She is considering aversion therapy but other treatments exist.

Discuss the use of other treatments for Sarah for her nicotine addiction. You must make reference to the context in your answer.

**(Total for Question 17 = 8 marks)**

**18** Drug misuse is considered by some psychologists to have a biological basis. However, other psychologists also argue that the environment in which the person lives provides an explanation for drug misuse.

Evaluate the nature and nurture explanations of drug misuse with reference to the two types of belief above. You must make reference to the context in your answer.

**(16)**

**(Total for Question 18 = 16 marks)**

**TOTAL FOR SECTION B: OPTION 3 = 36 MARKS**
**TOTAL FOR PAPER = 90 MARKS**