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### Syllabus points

- Applications of Psychology to Health: stress as defined by Selye (1936), models of stress, health related consequences of stress – maladaptive and adaptive coping strategies
- Science Inquiry: Ethical guidelines and practices for psychological research, Formulating research, Methodology, Processing and analysing data.

### Conditions

- Reading time: 5 minutes
- Working time: 50 minutes

### Task Weighting

- 8% total weighting

### Structure of this paper

Section	Number of questions available	Number of questions to be attempted	Suggested working time (minutes)	Marks	Score
Section One: Short Answer	2	2	35	33	
Section Two: Extended Response	1	1	15	16	
Total				49	

## Section One: Short Answer Response

(33 Marks)

This section has two questions. Write your answers in the spaces provided.  
Suggested working time: 35 minutes.

### Question One

(13 marks)

Mrs Lee and her Psychology class wanted to test their theory that different types of meditation techniques would improve stress levels before exams. The class collected participants from their own school; Year 7's, Year 9's, Year 11's, and Year 12's. The participants were aged between 11 and 18 years old and were randomly allocated into three groups. Group 1 practices mindfulness once a day and group 2 practice Mantra meditation once a day (a practice that involves repeating a word, phrase, or sound to bring about mental focus and clarity). Group 3 practiced no meditation beyond their normal daily routine. At the end of a two-month trial, a week before the exam period, all the participants completed a stress test.

The following results were collected:

	Mean Score on Stress Test (out of 100)
Group 1: Mindfulness	57
Group 2: Mantra Meditation	65
Group 3: No Meditation	79

A statistical test on the difference between the effect of practicing meditation verses no meditation on stress found that  $p = 0.47$

- a) Suggest a directional hypothesis that the class would have developed for this study.

(4 marks)

Students aged between 11 and 18 in group 1 and 2 of doing meditation will experience less stress on the stress test (mean, out of 100) compared to group 3 who does no meditation, with Group 1 Mindfulness meditation reducing the <sup>more</sup> ~~most~~ stress ~~out of~~ as opposed to Mantra meditation (group 2) meaning a less mean score on stress test.

- b) Identify two possible sources of error in the conduction of this experiment. (2 marks)

conducting a test of their stress a week prior to their exams meant results of stress may not be measured according to the medication, but rather the <sup>now</sup> ~~at~~ stressed students are to their upcoming exam.

- c) Define stress as defined by Selye (1936) (2 marks)

Stress is the body's unconditioned response to any specific demand (psychological and/or physiological).

- d) Outline what type/nature of stressor that being stressed about the upcoming exam is categorised by. (2 marks)

Psychological stressor which is the internal stress within <sup>an</sup> ~~and~~ individual is the stressor of being stressed about an upcoming exam.

- e) Name the type of stress these students are experiencing due to exam preparation and outline what this means. (3 marks)

Eustress is a positive stress being experienced by these students. This is as they feel stressed but also ready for preparation and the stress acts as a motivator for them to study in order to do well, taking on the challenge.

## Question Two

(20 marks)

Hugh recently graduated University and was travelling to his first big job interview. Along the way he noticed his car tire had started to go flat and needed replacing. Hugh was panicked and felt instantly stressed about making it on time for the job interview. Luckily a repair shop was close by, and he managed to get it replaced almost instantly.

- a) Describe the duration of the stressor.

(1 mark)

acute

- b) Identify the stage of stress Hugh was in when realising he had a flat tire and outline the characteristics of this stage.

(4 mark)

First stage of the GAS model, ~~the~~ noticing  
a situation as stressful.

Hugh unfortunately did not get offered the job position, and it is now 3 months later, and he has failed to secure another interview opportunity. His financial situation has been a serious stressor of his for these past few months.

- c) Explain what may happen if Hugh is unable to resolve the stress, including both short-term and long-term impacts.

(5 marks)

Hugh's stress would only increase, reducing his motivation, self efficiency and belief in one's sets of skills and self. Short term, he might feel less motivated to conduct tasks and thus perform poorly generally, and the impacts of this long-term may result in him being involved in proposing maladaptive coping strategies, such as indulging in substance abuse or an overuse of technology.

Due to the prolonged stress, Hugh decides to visit a psychologist, seeking help and support in managing his stress. The psychologist decides to assess Hugh's vulnerability to stress through The Social Readjustment Scale, developed by Holmes and Rahe (1967).

- d) Name the type of self-report measure used in the Social Readjustment Scale. (1 mark)

Scale (LCU) ~~life change unit~~

- e) Outline one strength and one limitation of this measurement tool. (2 marks)

The limitation is it overlooks specific <sup>feeling or position of the math</sup> ~~situation~~ in relation to the situation, topics often deemed as stressful and it experienced will be assessed but an individual may actually <sup>or not stressed</sup> be unbothered despite experiencing such situation

- f) Using Lazarus and Folkman's (1984) theory, outline the role of the following cognitive appraisals and apply them to Hugh. (4 mark)

Primary: Primary appraisal is the initial assessment of the situation. This is where Hugh assesses the state he's in and if his situation is harmful or stressful.

Secondary: secondary appraisal is the assessment and seeking/ utilising resources around you and the environment to deal with the stress and situation. For Hugh, this was when he decided to visit a psychologist.

- g) Explain the method of coping Hugh is using in the scenario. (3 mark)

Adaptive (problem-focused) coping strategy.  
Adaptive is when an individual is  
Hugh is directly choosing addressing and attempting to solve the initial problem or cause of stress, positive for the individual. Hugh sought a psychologist to find support and help manage his stress, dealing with the issue.



## Section Two: Extended Response

(16 Marks)

This section has **one** question. Write your answers in the spaces provided.

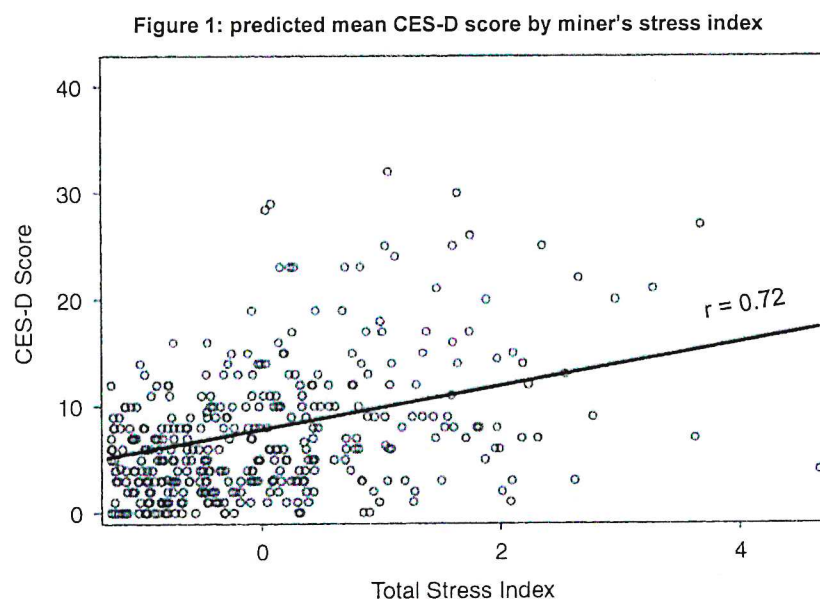
Suggested working time: 15 minutes.

### Question three

(16 marks)

Psychology students at Harvard University investigated the relationship between occupational stress and depressive symptoms among coal miners. The participants were 364 coal miners from Ohio, America. The study was approved by the internal review board of Harvard University.

A total stress index score was calculated for each miner to measure the level of stress they experience as part of their occupation. The Centre for Epidemiologic Studies Depression (CES-D) scale was used. It contains 20 items that are self-rated on a four-point Likert scale according to how often each symptom occurred in the past week. The sum of the scores represents the overall (CES-D) score between 0 to 60. A score of greater than 16 is considered indicative of depression. The scatterplot below shows the results for the study.



Notes: Adjusted for age, sex, race/ethnicity, alcohol intake and smoking status.

In a series of questionnaires used to gather qualitative data, the miner's reported threat of harm (intentional and unintentional), excessive work in hard conditions and a lack of support from supervisors as their three main stressors.

In your answer, refer to the above scenario by creating a well-constructed response, addressing the following:

- Outline what stress is according to Lazarus and Folkman (1984) and identify two types of stressors that the miner's experience in their work. (4 marks)
- The university's Internal Review Board is an example of an ethics committee. Describe the role of an ethics committee and outline two ethical guidelines that this committee would monitor during the study, stating how this would occur. (6 marks)
- Based on the data illustrated in Figure 1 on page 24, comment on the relationship between stress and depressive symptoms. (4 marks)
- Describe how psychological stress arises according to Lazarus and Folkman (1984) (2 marks)

Question number: 3

Stress is the response of an individual to their situation around them. Environmental stressors, which is stress caused by an individual's surrounding and environment around them, is one of the types of stressors that the miners are experiencing in their work, as mining is often hard long work and maybe even dangerous and exhausting <sup>as well as harmful atmosphere and coal, rubble.</sup>. The second type of stressor being experienced is psychological, the internal stress caused by their work and meeting demands, exhausting job.

The role of an ethics committee is to assess the ethical conditions of a proposed investigation or to be conducted study. This is to approve of the study making sure it is not bring harm to the participants and what is involved in the study, or if the proposed harmful effect is outweighed by the contribution to society using the results of the study. Two guidelines that would need to be monitored is the privacy of participants and right to withdraw. Privacy refers to the information of a participant specific to them and often protected by government, this includes names

Question number: 3

ages and identifying factors, this would be monitored by ensuring participants are only identified through a number or without any relation to ~~their~~ <sup>their</sup> individuality factors. On the other hand, withdrawal rights refers to the right held by participants to withdraw at any point in the study, including their individuality collected this can be ensured by making sure at no point in the method of the proposed study that participants are urged or pressured to stay and continue participating.

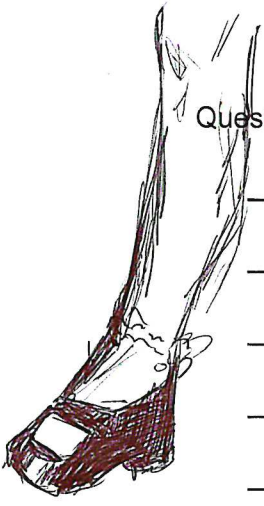
The  $R$ , correlation coefficient of 0.72 of the data suggests a strong correlation between stress and depressive symptoms. The overall trend of ~~it~~ positive increases supports such (as those who are 0-1 on the total stress index also fall low on the CES-D, meaning less depressive symptoms when they are experiencing less stress). On the other hand, those who lay between 1-4 on the <sup>total</sup> stress index are situated much higher on the CES-D, ~~achieving~~ <sup>achieving</sup> larger than 16



Question number: 3

which is considered an indication of  
depression

Question number: \_\_\_\_\_



قالت  
جاءت  
بها  
ساعت



END OF TEST