

SULIT



**BAHAGIAN PEPERIKSAAN DAN PENILAIAN
JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI
KEMENTERIAN PENGAJIAN TINGGI**

JABATAN PERDAGANGAN

PENILAIAN ALTERNATIF

SESI DIS 2020

DPB30063 : STATISTICS

NAMA PENYELARAS KURSUS : AZLIDA BINTI ABDULLAH

KAEDAH PENILAIAN : PEPERIKSAAN ONLINE

JENIS PENILAIAN : ESEI BERSTRUKTUR (2 SOALAN)

TARIKH PENILAIAN : 9 JULAI 2021

TEMPOH PENILAIAN : 1 JAM

LARANGAN TERHADAP PLAGIARISM (AKTA 174)

**PELAJAR TIDAK BOLEH MEMPLAGIAT APA-APA IDEA, PENULISAN, DATA
ATAU CIPTAAN ORANG LAIN. PLAGIAT ADALAH SALAH SATU
PENYELEWENGAN AKADEMIK. SEKIRANYA PELAJAR DIBUKTIKAN
MELAKUKAN PLAGIARISM, PENILAIAN BAGI KURSUS BERKENAAN AKAN
DIMANSUHKAN DAN DIBERI GRED F DENGAN NILAI MATA 0.**

**(RUJUK BUKU ARAHAN-ARAHAN PEPERIKSAAN DAN KAEDAH PENILAIAN (Diploma) EDISI 6, JUN 2019,
KLAUSA 17.3)**

INSTRUCTION:

This section consists of **TWO (2)** structured essay questions. Answer **ALL** questions.

ARAHAN:

Bahagian ini mengandungi DUA (2) soalan esei berstruktur. Jawab SEMUA soalan.

QUESTION 1**SOALAN 1**

CLO2
C3

- (a) Perbadanan Perpustakaan Awam Selangor has accepted new stock of 32 children's books. The following data shows the number of pages of the books.

Perbadanan Perpustakaan Awam Selangor telah menerima 32 stok buku kanak-kanak baru. Data berikut menunjukkan bilangan mukasurat buku-buku tersebut.

61	55	39	26	50	43	50	44
53	71	68	49	51	36	67	27
20	45	25	42	45	23	47	70
59	25	33	50	35	56	50	73

Based on the above data, you are required to:

Berdasarkan data di atas, anda dikehendaki untuk:

- i. Construct a frequency distribution table comprises of class intervals, frequency and class boundaries.

Membina jadual taburan kekerapan yang mengandungi selang kelas, kekerapan dan sempadan kelas.

[6 marks]

[6 markah]

- ii. Draw a histogram graph.

Melukis graf histogram.

[4 marks]

[4 markah]

CLO2
C3

(b) The table below shows the working experiences in months of 120 employees at Maju Jaya Company.

Jadual di bawah menunjukkan pengalaman bekerja dalam bulan bagi 120 pekerja di Syarikat Maju Jaya.

Working experience in months <i>Pengalaman bekerja dalam bulan</i>	11 - 14	15 - 18	19 - 22	23 - 26	27 - 30	31 - 34	35 - 38
Number of employees <i>Bilangan pekerja</i>	16	20	28	24	16	11	5

Calculate:

Kira:

i. Median

Median

[4 marks]

[4 markah]

ii. Mean

Min

[4 marks]

[4 markah]

iii. Standard Deviation

Sisihan Piawai

[4 marks]

[4 markah]

iv. Pearson Coefficient of Skewness 2

Pekali Kepencongan Pearson 2

[3 marks]

[3 markah]

QUESTION 2**SOALAN 2**CLO2
C3

- (a) The table below shows the monthly income, y and years of experience, x of nine randomly selected employees from a firm in Sepang, Selangor.

Jadual di bawah menunjukkan pendapatan bulanan, y dan bilangan tahun pengalaman, x bagi sembilan orang pekerja yang dipilih secara rawak di sebuah syarikat di Sepang Selangor.

Employee <i>Pekerja</i>	Aziz	Sya	Deen	Ella	Shah	Fina	Chin	Sue	Ravi
Income <i>Pendapatan</i> (RM'000)	4	12	8	11	6	7	10	8	15
Years of experience <i>Bilangan</i> <i>tahun</i> <i>pengalaman</i>	6	11	7	10	5	7	9	5	12

- i. Calculate the correlation coefficient of Spearman rank between monthly income, y and years of experience, x .

Kira koefisien korelasi pangkat Spearman di antara pendapatan bulanan, y dan bilangan tahun pengalaman, x .

[13 marks]

[13 markah]

- ii. Write a conclusion based on the value in (i).

Tulis kesimpulan bagi nilai yang diperolehi di (i).

[2 marks]

[2 markah]

CLO2
C3

- (b) In a recent study, it was found that people living in a city have a 60% chance of being infected by COVID-19. 20% of people who were infected with the virus were free from any symptoms, while 10% of those who were not infected showed the symptoms.

Kajian terkini mendapati orang yang tinggal di bandar mempunyai 60% peluang untuk dijangkiti COVID-19. 20% daripada yang dijangkiti virus adalah bebas dari gejala manakala 10% daripada yang tidak dijangkiti menunjukkan gejala.

- i. Draw a tree diagram for the above information.

Lukis gambarajah pokok untuk maklumat di atas.

[6 marks]

[6 markah]

- ii. Calculate the probability that a person chosen at random is free from any COVID-19 symptoms.

Kirakan kebarangkalian seorang yang dipilih itu adalah bebas dari gejala COVID-19.

[2 marks]

[2 markah]

- iii. A person who has been tested and is free from any COVID-19 symptoms. Calculate the probability that he/she has not been infected by the COVID-19.

Seorang yang diuji dan bebas dari gejala COVID-19. Kirakan kebarangkalian yang dia tidak dijangkiti oleh COVID-19.

[2 marks]

[2 markah]

SOALAN TAMAT

FORMULA STATISTICS

$$k = 1 + 3.3 \log_{10} n$$

$$R = \text{Highest value} - \text{Lowest value}$$

$$c = \frac{\text{Range}}{k}$$

$$\bar{x} = \frac{\sum fx}{\sum f}$$

$$\bar{x} = Lm + \left[\frac{\frac{\sum f}{2} - \sum fm^{-1}}{f_m} \right] C$$

$$\hat{x} = Lb + \left[\frac{f_0 - f_1}{(f_0 - f_1) + (f_0 - f_2)} \right] C$$

$$\hat{x} = \bar{x} - 3(\bar{x} - \hat{x})$$

$$MD = \frac{1}{\sum f} \{ \sum f(x - \bar{x}) \}$$

$$s^2 = \frac{1}{\sum f - 1} \left[\sum fx^2 - \frac{(\sum fx)^2}{\sum f} \right]$$

$$s = \sqrt{s^2}$$

$$cv = \frac{s}{\bar{x}} \times 100$$

$$PCS 1 = \frac{\bar{x} - \hat{x}}{s}$$

$$PCS 2 = \frac{3(\bar{x} - \hat{x})}{s}$$

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

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

$$b = \frac{n\sum xy - (\sum x)(\sum y)}{n\sum x^2 - (\sum x)^2}$$

$$a = \frac{\sum y}{n} - b \frac{\sum x}{n}$$

$$y = a + bx$$