KOLEJ TEKNOLOGI DARULNAIM
Professional . Berketerampilan . Beretika

PEPERIKSAAN AKHIR / FINAL EXAMINATION
SEMESTER II – SESI 2020/2021

KOD KURSUS   : DPP2223
COURSE CODE

NAMA KURSUS   : STATISTIK PERNIAGAAN
COURSE NAME   *: BUSINESS STATISTICS*

TAHUN/PROGRAM   : 2 / DIPLOMA PENGURUSAN PERNIAGAAN
YEAR/PROGRAMME   : 2 / DIPLOMA IN BUSINESS MANAGEMENT

TEMPOH   : 2 JAM 30 MINIT
DURATION   : 2 HOURS 30 MINUTES

TARIKH   : APRIL 2021
DATE

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ARAHAN   1. JAWAB SEMUA SOALAN DALAM BAHAGIAN A, B DAN C.
INSTRUCTION   *ANSWER ALL QUESTIONS IN PART A, B AND C*

                    2. CALON DIKEHENDAKI MEMATUHI SEMUA ARAHAN PEPERIKSAAN.
                       CANDIDATES ARE REQUIRED TO FOLLOW ALL EXAMINATION INSTRUCTIONS.

NAMA PELAJAR / *STUDENT'S NAME*	
NO. K/P / *I/C NO.*	
TAHUN/PROGRAM / *YEAR/PROGRAMME*	
NAMA PENSYARAH / *LECTURER'S NAME*	PN SURIANI BINTI JAAFAR

KERTAS PEPERIKSAAN INI MENGANDUNGI 10 MUKA SURAT BERCETAK TERMASUK MUKA HADAPAN
THIS EXAMINATION PAPER CONSISTS OF 10 PAGES INCLUDING THE FRONT PAGE

BAHAGIAN A (15 markah)

[PART A (15 marks)]

ARAHAN : Jawab semua soalan-soalan berikut.

[INSTRUCTION: Answer all the following questions.

Soalan 1

[Question 1]

a)   Nyatakan definisi bagi istilah-istilah berikut:

   [State the definition of the following terms:]

   i.   populasi,

       [population,]

   ii.   pembolehubah diskrit.

       [discrete variable.]   (3 markah / *marks*)

b) Kenalpasti jenis pebolehubah dan tahap pengukuran bagi pembolehubah berikut.

   [Identify the type of variable and level of measurement for the following variable.]

   i.   Gred A, B, C, D dan E bagi suatu ujian matematik.

       [Grades A, B,C, D, and E of a mathematics test.]

   ii.   Suhu di Barcelona,Sepanyol.

        [Temperature in Barcelona, Spain.]

   iii.   Jenama kemaja dibeli oleh pelanggan.
       [Brand of shirt bought by customers]

   iv.   Masa yang diambil untuk menyiapkan sesuatu tugasan.
       [Time taken to complete a task.]

   v.   Bilangan panggilan yang diterima dalam seminggu.

       [The number of calling receives in a week.]   (5 markah / *marks*)

Soalan 2

[Question 2]

Jadual 1 menunjukkan jenis kesalahan jenayah siber di Malaysia dari tahun 2014 - 2018

[Table 1 shows the types of cyber crime in Malaysia from year 2014-2018.]

Jadual 1: Jenis Kesalahan Siber Di Malaysia

[Table 1: Typers of Cyber Crimes in Malaysia]

Tahun [Year]	Jenis Kesalahan [Type of Crime]		
	Macau Scam [Macau Scammer]	E-Dagang [E-commerce]	Tipu SMS [SMS Scammer]
2014	1,051	2,071	270
2015	365	4,385	543
2016	397	6,450	458
2017	1,413	5,962	472
2018	2,254	3,324	324
JUMLAH	5,480	22,192	2067

Bina carta palang dari data yang disediakan dalam Jadual 1.

[Construct a bar chart from the data provided in Table 1.]

(7 markah / marks)

BAHAGIAN B (60 markah)

[PART B (60 marks)]

ARAHAN : Jawab semua soalan-soalan berikut.

[INSTRUCTION: Answer all the following questions.]

Soalan 1

[Question 1]

Data yang tersusun berikut di ambil daripada 20 restoran bagi kos untuk setiap hidangan (dalam RM):
[The following ordered data are collected from 20 restaurants for the cost og one meal (in RM):]

25	26	29	32	33	33	35	35	37	39
43	43	43	44	45	48	50	51	53	54

a) Tentukan min, median dan mod bagi data tak terkumpul berikut.
    [Determine the mean, median and mode for the following ungroupped data.]

(6 markah / *marks*)

b) Bina rajah dahan dan daun bagi data tersebut.
    [Construct the stem and leaf display of the data.]

(4 markah / *marks*)

c) Dapatkan sisihan piawai bagi data tersebut.
    [Find the standard deviation of the data.]

(3 markah / *marks*)

d) Kirakan pekali kepencongan. Adakah data simetri atau terpencong?
    [Calculate the coefficient of skewness. Are the data symmetric or skewed]

(4 markah/ *marks*)

Soalan 2

[Question 2]

Sampel 2000 orang dewasa pernah ditanya samada mereka pernah membeli di internet. Jawapan telah direkodkan seperti yang ditunjukkan dalam jadual di bawah.

[A sample of 2000 adults were asked whether or not they ever shopped on the internet. The answer were recorded as shown in the table below.]

Jadual 2 / [Table 2]

	Pernah Membeli [Have Shopped]	Tidak Pernah Membeli [Never Shopped]	Jumlah [Total]
Lelaki [Male]	900	300	1200
Perempuan [Female]	600	200	800
Jumlah [Total]	1500	500	2000

Jika seorang dewasa dipilih secara rawak, dapatkan kebarangkalian bahawa orang tersebut:

[If one adult is selected at random, from the probability that this adult:]

a) Tidak pernah membeli di internet

[has never shopped on internet.]

(5 markah / marks)

b) Adalah perempuan dan pernah membeli di internet.

[a female and has shopped on internet.]

(5 markah/ marks)

c) Adalah lelaki diberi bahawa orang tersebut tidak pernah membeli di internet.

[is a male given that this adults has never shopped on the internet.] (5 markah / marks)

Soalan 3

[Soalan 3]

a) Katalah X mewakili masa larian (minit) bagi pelajar untuk acara larian 1000 km dalam satu pertandingan sukan. Andaikan X ~ N (30, 36). Kira X bahawa nilai kebarangkalian bagi:

[Let X represents the running time (minutes) for students for a run event 1000 km in a sports competition. Assume X ~N(30, 36). Calculate X that the probability value for:]

  i. P (X < 25)

(4 markah/*marks*)

  ii. P (18 ≤ X ≤ 35)

(6 markah/*marks*)

b) Purata hujan turun dalam satu musim di Kelantan adalah bertaburan normal dengan min 28 sm dan sisihan piawai 2 sm. Cari kebarangkalian bahawa dalam musim hujan yang akan datang , jumlah hujan adalah seperti berikut:

[The average rainfall in a season in Kelantan is normally distributed with a mean 28 cm and a standard deviation of 2 cm . Find the probability that in coming rainy season , the amount of rainfall is as follows:]

  i. antara 27 dan 31 sm,
     [between 27 and 31 cm,]   (5 markah /*marks*)

  ii. lebih daripada 30.2 sm
     [more than 30.2 cm]   (4 markah /*marks*)

Soalan 4

[Question 4]

Sampel rawak bersaiz 32 diambil dari populasi tertabur normal dengan min 30 dan sisihan piawai 9. Apakah kebarangkalian bahawa:

[A random sample of size 32 is drawn from a population which is normally distributed with a mean of 30 and a standard deviation of 9. What is the probability that :]

a) min sampel lebih daripada 26 ?

   [the sample mean is more than 26?]

(5 markah / *marks*)

b) min sample lebih kecil daripada 33?

   [the sample mean is smaller than 33?]

(4 markah / *marks*)

BAHAGIAN C (25 markah)

[PART C (25 marks)]

ARAHAN : Jawab semua soalan-soalan berikut.

[INSTRUCTION: Answer all the following questions.]

Soalan 1

[Question 1]

Suatu kajian dijalankan bagi mengenalpasti hubungan antara bilangan penghuni isi rumah dan perbelanjaan bulanan mereka untuk makanan (RM) dalam tempoh Perintah Kawalan Pergerakan (PKP) daripada bulan Mac hingga April 2020. Jadual 3 di bawah menunjukkan data yang dikumpul secara rawak daripada sepuluh (10) isirumah di kawasan Kota Bharu.

[*A research was carried out to identify the relationship between the number of members in a household and their monthly expenditure on food (RM) during Movement Control Order (MCO) from March to April 2020. Table 3 below shows the data collected randomly from ten (10) households in Kota Bharu area*.]

Isirumah *[Household]*	Bilangan penghuni dalam isirumah *[Number of members in a household]*	Perbelanjaan Makanan (RM) *[Food Expenditure (RM)]*
1	2	1,200
2	3	2,000
3	4	2,300
4	7	3,500
5	5	3,700
6	4	2,200
7	8	4,100
8	10	6,000
9	2	1,000
10	6	2,900

Jadual 3 *[Table 3]*

a) Nyatakan pembolehubah bersandar dan tidak bersandar.

   [State the dependent and independent variable.]

   (1 markah / *marks*)

b) Kirakan pekali korelasi Pearson dan berikan interpretasi nilai yang didapati.

   [Compute the Pearson correlation coefficient and interpret the value obtained.]

   (4 markah / *marks*)

c) Dapatkan persamaan regresi linear bagi perbelanjaan makanan bulanan terhadap bilangan penghuni isirumah.

   [Find the linear regression equation of monthly food expenditure against number of members of household.]

   (8 markah / *marks*)

d) Anggarkan perbelanjaan bulanan untuk makanan jika terdapat lima (5) orang penghuni dalam suatu isirumah.

   [Estimate the monthly expenditure on food if there were five (5) members in one household.]

   (2 markah / *marks*)

Soalan 2

[Question 2]

Pengurus kawalan kualiti di kilang mentol lampu pendarfluor padat (CFL) perlu menentukan sama ada min hayat untuk satu penghantaran besar CFLs adalah sama dengan 7,500 jam. Sisihan piawai populasi adalah 1,000 jam. Sampel rawak 64 CFLs menunjukkan min hayat sampel sebanyak 7,250 jam. Pada aras keertian 0.05, apakah terdapat bukti bahawa min hayat adalah berbeza daripada 7,500 jam?

[The quality control-manager at a compact fluorescent light bulb (CFL) factory needs to determine whether the mean life of a large shipment of CFLs is equal to 7,500 hours. The population standard deviation is 1,000 hours. A random sample of 64 CFLs indicates a sample mean life of 7,250 hours. At the 0.05 level of significance, is there evidence that the mean life is different from 7,500 hours?]

(10 markah / *marks*)

SOALAN TAMAT

[END OF QUESTION]