1. State three examples of risks that may be faced in our daily life.

   Solution:

   (a) Getting injured when travelling
   (b) Car accident
   (c) House being burned down by fire

2. State one disaster covered by

   (a) life insurance
   (b) fire insurance
   (c) health insurance

   Solution:

   (a) Death
   (b) Property damage due to fire
   (c) Staying in hospital due to injury

3. The table below shows the premiums for a travel insurance offered by SJM Insurance Company for traveling to Japan and Australia.

Number of days	Policyholder (RM)		Policyholder and spouse (RM)		Family (Maximum 6 people) (RM)	
	Japan	Australia	Japan	Australia	Japan	Australia
$1-4$	62	85	135	140	288	380
$5-8$	88	112	164	175	360	480
$9-12$	110	140	185	198	390	530
$13-16$	150	175	210	210	460	600
Annual premium (18-65 years old)	540	720	-	-	-	-

   (a) State the factors that cause the difference in premiums for travel insurance.

   Solution:

   i. The number of days of travel
   ii. The destination of travel
   iii. The number of people insured

   (b) Mr Faud wants to travel to Japan with his wife and two children from 6 January 2021 to 16 January 2021. Which package is suitable for Mr Faud?

   Solution:

   Mr Faud should choose the 9 - 12 days family package for Japan. The total premium is RM390.

(c) Hui Ling wants to travel to Australia for 5 days every month to do an investigation. Which package is suitable for Hui Ling? Give your reason.

Solution:

Hui Ling should choose the annual premium package for Australia. The total premium is RM720.

4. The table below shows the premium rates for every RM1 000 face value of a life insurance offered by Deva Insurance Company.

Age	Male		Female	
	Non-smoker	Smoker	Non-smoker	Smoker
25	1.752	1.932	1.412	1.681
26	1.784	1.985	1.450	1.728
27	1.810	2.046	1.483	1.782
28	1.837	2.101	1.510	1.829
29	1.870	2.153	1.544	1.867

Calculate the annual premium needed to be paid by each of the following policyholders.

(a) Ms Gui is 29 years old and a smoker. She wants to get a life insurance coverage of RM130 000.

Solution:

According to the table, the premium rate for Ms Gui is 1.867

$$\begin{aligned}\text{Annual premium} &= \frac{\text{Face value}}{1000} \times \text{Premium rate} \\ &= \frac{130000}{1000} \times 1.867 \\ &= \text{RM } 242.71\end{aligned}$$

(b) Mr Sahrin is 26 years old and does not smoke. He wants to get a life insurance coverage of RM80 000 and add on a critical illness policy. Deva Insurance Company has offered a critical illness policy to Mr Sahrin with a coverage of 30% of basic face value and the premium rate for every RM1 000 is RM1.128.

Solution:

According to the table, the premium rate for Mr Sahrin is 1.784

The amount coverage for critical illness is 30% of basic face value, which is

$$\begin{aligned}\text{Amount coverage} &= \frac{30}{100} \times 80000 \\ &= \text{RM } 24000\end{aligned}$$

$$\begin{aligned}\text{Annual premium} &= \text{Annual basic premium} + \text{Additional critical illness premium} \\ &= \frac{80000}{1000} \times 1.784 + \frac{24000}{1000} \times 1.128 \\ &= \text{RM } 169.80\end{aligned}$$

5. Mr Fazli wants to buy a motor insurance for his car in Sabah. The following shows the information of his car.

Age of vehicle	:	5 years
Engine capacity	:	1600cc
NCD	:	45%
Sum insured	:	RM52 000

Calculate the gross premium for Mr Fazli's car under each of the following policies.

(a) Comprehensive

Solution:

According to the premium rate table under the Motor Tariff, the basic premium for the first RM 1000 is RM 220.50. The basic premium for the balance is

$$\begin{aligned}\text{Basic premium} &= \frac{52000 - 1000}{1000} \times 20.30 \\ &= \text{RM } 1035.30\end{aligned}$$

$$\begin{aligned}\text{Total basic premium} &= 220.00 + 1035.30 \\ &= \text{RM } 1255.30\end{aligned}$$

$$\begin{aligned}\text{NCD } 45\% &= \frac{45}{100} \times 1255.30 \\ &= \text{RM } 564.885\end{aligned}$$

$$\begin{aligned}\text{Gross premium} &= 1255.80 - 564.885 \\ &= \text{RM } 690.42\end{aligned}$$

(b) Third party

Solution:

According to the premium rate table under the Motor Tariff, the basic premium is RM 75.60.

$$\begin{aligned}\text{NCD } 45\% &= \frac{45}{100} \times 75.60 \\ &= \text{RM } 34.02 \\ \text{Gross premium} &= 75.60 - 34.02 \\ &= \text{RM } 41.58\end{aligned}$$

(c) Third party, fire and theft

Solution:

$$\begin{aligned}\text{Gross premium} &= 75\% \text{ of comprehensive policy's gross premium} \\ &= \frac{75}{100} \times 690.42 \\ &= \text{RM } 517.82\end{aligned}$$

6. Determine whether each of the following policyholders can claim the compensation from the loss suffered. Hence, state the amount of compensation that can be claimed.

   (a) Motor insurance for Tsu Chin's car has a deductible provision of RM300. Tsu Chin has suffered an accident that causes a loss of RM648.

   Solution:

   The amount of loss exceeds the deductible amount. Therefore, Tsu Chin can claim the compensation. The amount of compensation that can be claimed is $648 - 300 = \text{RM } 348$.

   (b) Motor insurance for Madam Gayah's car has a deductible provision of RM500. Madam Gayah has suffered an accident that causes a loss of RM290.

   Solution:

   The amount of loss does not exceed the deductible amount. Therefore, Madam Gayah cannot claim the compensation.

7. Mariana bought a motor insurance for her car with a deductible provision of RM400. Due to the flood, Mariana has suffered losses in three months as shown in the following table.

Month	Loss (RM)
January	500
May	340
November	875

Determine whether the loss can be claimed in each month. Hence, state the total amount of compensation that can be claimed.

Solution:

   (a) January

   Solution:

   The amount of loss exceeds the deductible amount. Therefore, Mariana can claim the compensation. The amount of compensation that can be claimed is $500 - 400 = \text{RM } 100$.

   (b) May

   Solution:

   The amount of loss does not exceed the deductible amount. Therefore, Mariana cannot claim the compensation.

   (c) November

   Solution:

   The amount of loss exceeds the deductible amount. Therefore, Mariana can claim the compensation. The amount of compensation that can be claimed is $875 - 400 = \text{RM } 475$.

   (d) Total amount of compensation

   Solution:

   The total amount of compensation that can be claimed is $100 + 475 = \text{RM } 575$.

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8. Calculate the amount of compensation that will be paid to each of the following health insurance policyholders.

   (a) Health insurance of Mr Suman has a deductible provision of RM450 per year. He has made a treatment in three consecutive months for his illness in a private hospital. The table below shows the treatment costs in the three months.

Month	Treatment cost (RM)
July	830
August	360
September	250

   Solution:

$$\begin{aligned} \text{Accumulated treatment cost} &= 830 + 360 + 250 \\ &= \text{RM } 1440 \\ \text{Amount of compensation} &= 1440 - 450 \\ &= \text{RM } 990 \end{aligned}$$

   (b) Agatha has a medical insurance with an annual limit of RM50 000. The amount of deductible borne by Agatha is RM1 200 per year. She has been treated at a specialist hospital with a medical cost of RM40 000.

   Solution:

$$\begin{aligned} \text{Amount of compensation} &= 40000 - 1200 \\ &= \text{RM } 38800 \end{aligned}$$

9. Insurable value of Madam Loke's house is RM360 000. She has bought a fire insurance that has a co-insurance provision to insure 90% of the insurable value of her house and a deductible of RM1 600. Madam Loke's house caught fire and the amount of loss is RM67 000. Calculate the amount of compensation that will be received by Madam Loke if she insures her house at

   (a) an amount of required insurance,

   Solution:

$$\begin{aligned} \text{Amount of required insurance} &= 90\% \times 360000 \\ &= \text{RM } 324000 \end{aligned}$$

   The loss does not exceed the deductible amount. Therefore,

$$\begin{aligned} \text{Amount of compensation} &= 67000 - 1600 \\ &= \text{RM } 65400 \end{aligned}$$

(b) a sum of RM180 000.

Solution:

The amount of insured value is less than the required insurance. Therefore,

$$\begin{aligned}\text{Amount of compensation} &= \frac{\text{Amount of insured value}}{\text{Amount of required insurance}} \times \text{Amount of loss} - \text{Deductible} \\ &= \frac{180000}{324000} \times 67000 - 1600 \\ &= \text{RM } 35622.22\end{aligned}$$

10. Awang Farid has a major medical insurance policy with a deductible provision of RM1 000 and a 90/10 co-insurance percentage participation clause. If the treatment cost of Awang Farid is RM26 400, calculate the amount of treatment costs borne by insurance company and Awang Farid respectively.

Solution:

$$\begin{aligned}\text{Treatment cost after deductible} &= 26400 - 1000 \\ &= \text{RM } 25400 \\ \text{Treatment cost borne by insurance company} &= 90\% \times 25400 \\ &= \text{RM } 22860 \\ \text{Treatment cost borne by Awang Farid} &= 10\% \times 25400 \\ &= \text{RM } 2540\end{aligned}$$