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**KOLEJ YAYASAN PELAJARAN JOHOR  
FINAL EXAMINATION**

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<b>SUBJECT</b>	<b>:</b>	<b>FOOD HYGIENE AND SANITATION</b>
<b>SUBJECT CODE</b>	<b>:</b>	<b>DCA 1053</b>
<b>DATE</b>	<b>:</b>	<b>13 OCTOBER 2015</b>
<b>DURATION</b>	<b>:</b>	<b>9.00 AM – 12.00 PM (3 HOURS)</b>

**INSTRUCTIONS TO CANDIDATES**

1. This question paper consists of **THREE (3)** sections:  
Section A (15 Marks)  
Section B (15 Marks)  
Section C (70 Marks)
2. Answer **ALL** questions from all parts.
3. Candidate is not allowed to bring any material into the examination room **EXCEPT** with the permission from the invigilator.
4. Please check to make sure that this examination pack consists of:
  - i. Question Paper
  - ii. Answering Booklet
  - iii. OMR Form

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**DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO**

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*This examination paper consists of 12 printed pages including front page.*



**PART A (Total: 15 marks)****MULTIPLE CHOICE QUESTIONS****INSTRUCTION: Answer ALL questions.***(Arahan: Sila jawab SEMUA soalan)***Please use the OMR sheet provided.***(Sila gunakan kertas OMR yang disediakan)*

1. Most cases of Foodborne illness in food establishments is caused by:  
*(Kebanyakan kes Penyakit Bawaan Makanan di industri pemakanan disebabkan oleh:)*
  - A. Food is always kept in the tight and safe containers
  - B. Food is exposed to unsafe temperature
  - C. Food that has been washed before cooked
  - D. Food is cooked in a proper temperature
  
2. \_\_\_\_\_ is the greatest cause of Foodborne Illness in all retail food establishments.  
*(\_\_\_\_\_ merupakan penyebab utama Penyakit Bawaan Makanan di kesemua industri pemakanan.)*
  - A. Bacteria and Chemical
  - B. Bacteria and Physical hazards
  - C. Bacteria and parasites
  - D. Bacteria and Viruses
  
3. The example of parasite is:  
*(Contoh parasit adalah:)*
  - A. Anisaki spp
  - B. Salmonella spp
  - C. Clostridium botulinum
  - D. Staphylococcus aureus
  
4. This item should be stored carefully and never used a second time.  
*(Barangan ini hendaklah disimpan dengan cermat dan jangan sesekali digunakan kali kedua.)*
  - A. All earthenware items
  - B. All disposable items
  - C. All stainless steel items
  - D. All glasses items

5. Boiling point for sterilising equipments and utensils is:  
(Untuk membasmi kuman peralatan dan pinggan mangkuk, suhu didihnya adalah:)
- A. 37C
  - B. 28C
  - C. 18C
  - D. 100C
6. "It should protect employees from external heat, grease and vapours. It should save from wear and tear. A well dressed, neat and clean employee gives a good impression to guests and customers." This statement refers to:  
(*"Ia mestilah boleh melindungi pekerja dari haba, minyak atau bau. Ia mestilah selamat dari cepat terkoyak dan reput. Pemakaian yang bersih dan kemas memberi keterampilan yang baik kepada tetamu dan pelanggan."*Kenyataan ini merujuk kepada:)
- A. Protective accessories
  - B. Protective footwear
  - C. Protective clothing
  - D. Protective eyewear
7. Hand sanitizing lotions \_\_\_\_\_ be used as a replacement for handwashing.  
(*Losyen pembasmi kuman \_\_\_\_\_ digunakan untuk menggantikan cucian tangan.*)
- A. Must always
  - B. Must repeatedly
  - C. Must never
  - D. Must continuously
8. It means good health habits that include bathing, washing hair, wearing clean clothing and frequent hand washing.  
(*Ia bermaksud tabiat yang menyihatkan iaitu mandi, membasuh rambut, memakai baju yang bersih dan selalu membasuh tangan.*)
- A. Personal hygiene
  - B. Personal medications
  - C. Personal references
  - D. Personal belongings

9. One of these diseases is NOT because of Foodborne illness.  
(*Salah satu penyakit ini BUKANNYA disebabkan oleh Penyakit Bawaan Makanan.*)
- A. Typhoid
  - B. Cholera
  - C. Hepatitis B
  - D. Aids
10. \_\_\_\_\_ DO NOT multiply in foods.  
(*\_\_\_\_\_ TIDAK membiak didalam makanan.*)
- A. Bacteria
  - B. Virus
  - C. Parasite
  - D. Protozoa
11. Pesticides are in the group of:  
(*"Pesticides" adalah didalam kumpulan:*)
- A. Man-made chemical
  - B. Naturally occurring chemical
  - C. Parasites
  - D. Viruses
12. HACCP means:  
(*HACCP bermaksud:*)
- A. Health Assessments Critical Control Point
  - B. Hazard Assignment Criteria Complete Procedures
  - C. Hazard Annual Critical Culinary Procedures
  - D. Hazard Analysis Critical Control Point
13. The structure of HACCP system consists of \_\_\_\_\_ principles.  
(*Struktur sistem HACCP mengandungi \_\_\_\_\_ prinsip.*)
- A. Five
  - B. Six
  - C. Seven
  - D. Eight

14. The waste from the preparation, cooking and consumption of food is called:

*(Sisa dari penyediaan, masakan dan pembuangan makanan dipanggil:)*

- A. Sewage
- B. Garbage or swill
- C. Refuse
- D. Recycling non-biodegradable

15. The example of recycling non-biodegradable waste is:

*(Contoh sisa yang boleh dikitar semula adalah:)*

- A. Cauliflower
- B. Cabbage
- C. Can
- D. Cantaloupe

**PART B (Total : 15 Marks )****“TRUE” (T) OR “FALSE” (F)****INSTRUCTION: Answer ALL questions.**

*(Arahan: Sila jawab SEMUA soalan)*

**Please use the OMR sheet provided.**

*(Sila gunakan kertas OMR yang disediakan)*

1. \_\_\_\_\_ Biochemical spoilage includes bacteria, molds, yeasts, protozoa and parasites.

*( \_\_\_\_\_ Kerosakan Biokemikal disebabkan oleh bakteria, kulat, yis, protozoa dan parasit.)*

2. \_\_\_\_\_ Raw foods must be stored above the ready-to-eat food.

*( \_\_\_\_\_ Apabila menyimpan makanan, makanan mentah mestilah disimpan dibahagian atasnya dan makanan -sedia -dimakan disimpan dibawahnya.)*

3. \_\_\_\_\_ Always prepared the raw foods first, then the ready-to-eat food.

*( \_\_\_\_\_ Sentiasalah menyediakan makanan mentah terlebih dahulu , kemudian barulah menyediakan makanan-sedia-dimakan.)*

4. \_\_\_\_\_ The rules to remember: “keep hot food hot, keep cold food cold, or don’t keep the food at all.”

*( \_\_\_\_\_ Peraturan yang mesti dipatuhi: “Sentiasa pastikan makanan panas sentiasa panas, makanan sejuk sentiasa sejuk, atau jangan disimpan langsung makanan tersebut.)*

5. \_\_\_\_\_ Foodborne intoxication is caused by eating a food that contains harmful microorganisms that will produce a toxin once inside the human body.

*( \_\_\_\_\_ “Foodborne intoxication” berlaku disebabkan oleh memakan makanan tercemar yang mengandungi mikrob berbahaya ,dan mikrob ini mengeluarkan sejenis racun apabila masuk sahaja kedalam tubuh manusia.)*

6. \_\_\_\_\_ Viruses are much bigger than bacteria.

*( \_\_\_\_\_ Saiz virus lebih besar dari bakteria.)*

7. \_\_\_\_\_ Parasitic infection is far less common than bacterial or virus Foodborne illnesses.

*( \_\_\_\_\_ Jangkitan Penyakit Bawaan Makanan oleh parasit jarang berlaku kepada manusia jika dibandingkan dengan jangkitan Penyakit Bawaan Makanan oleh bakteria atau virus.)*

8. \_\_\_\_\_ The symptoms of food allergies can occur as little as five minutes.  
( \_\_\_\_\_ *Simptom alahan makanan boleh berlaku kepada seseorang dalam waktu lima minit sahaja.*)
9. \_\_\_\_\_ The example of chemical hazards is items such as broken glasses, toothpick and human hair.  
( \_\_\_\_\_ *Contoh bahaya kemikal adalah berpunca dari barangan seperti sisa kaca, penyungkil gigi dan rambut.*)
10. \_\_\_\_\_ Never reuse or wash disposable gloves; always throw them away.  
( \_\_\_\_\_ *Jangan sesekali menggunakan semula sarung tangan pakai buang yang telah digunakan; sentiasalah membuangnya terus.*)
11. \_\_\_\_\_ "Sanitizing" is the physical removal of soil and food residues from surfaces of equipment and utensils.  
( \_\_\_\_\_ *"Sanitasi" bermaksud menanggalkan kotoran dan sisa makanan yang nampak dari permukaan peralatan dan pinggan mangkuk.*)
12. \_\_\_\_\_ Flies, cockroaches and rodents are considered pet.  
( \_\_\_\_\_ *lalat, lipas dan tikus adalah didalam kumpulan "pet".*)
13. \_\_\_\_\_ Gaseous waste includes wastes from sinks and drains from the kitchen.F  
( \_\_\_\_\_ *Sisa gas termasuklah sisa dari air kumbahan sinki dan longkang dapur.*)
14. \_\_\_\_\_ When purchasing food, buy only from reputable suppliers and spot check the foods for obvious signs of contamination.  
( \_\_\_\_\_ *Apabila membuat pembelian makanan, belilah dari pembekal yang dipercayai dan periksalah makanan tersebut kalau ada tanda-tanda pencemaran.*)
15. \_\_\_\_\_ The HACCP system helps food managers identify and control potential problems AFTER they happen.  
( \_\_\_\_\_ *Sistem HACCP membantu pengurus makanan mengenalpasti dan mengawal permasalahan dan pencemaran yang mungkin timbul SETELAH ianya berlaku.*)



**PART C (Total: 70 marks)****SHORT ESSAY****INSTRUCTION: Answer ALL questions. This section consists of 5 questions.***ARAHAN: Jawab SEMUA soalan . Bahagia ini mengandungi 5 soalan.***Please use the answer booklet provided.***Gunakan buku jawapan yang disediakan.***QUESTION 1 (15 MARKS)**

The sources of contamination can be harmful to humans.

*(Punca-punca pencemaran boleh membahayakan manusia.)*

a. Draw a complete Diagram of Routes of Contamination in details.

*(Lukiskan diagram lengkap aliran pencemaran dengan lengkap.)***(10 Marks)**

b. From the diagram that you draw, explain how the Primary Source can be harmful to humans.

*(Dari diagram yang telah kamu lukiskan, nyatakan bagaimanakah Penyebab Utama itu boleh membahayakan manusia.)***(5 Marks)**

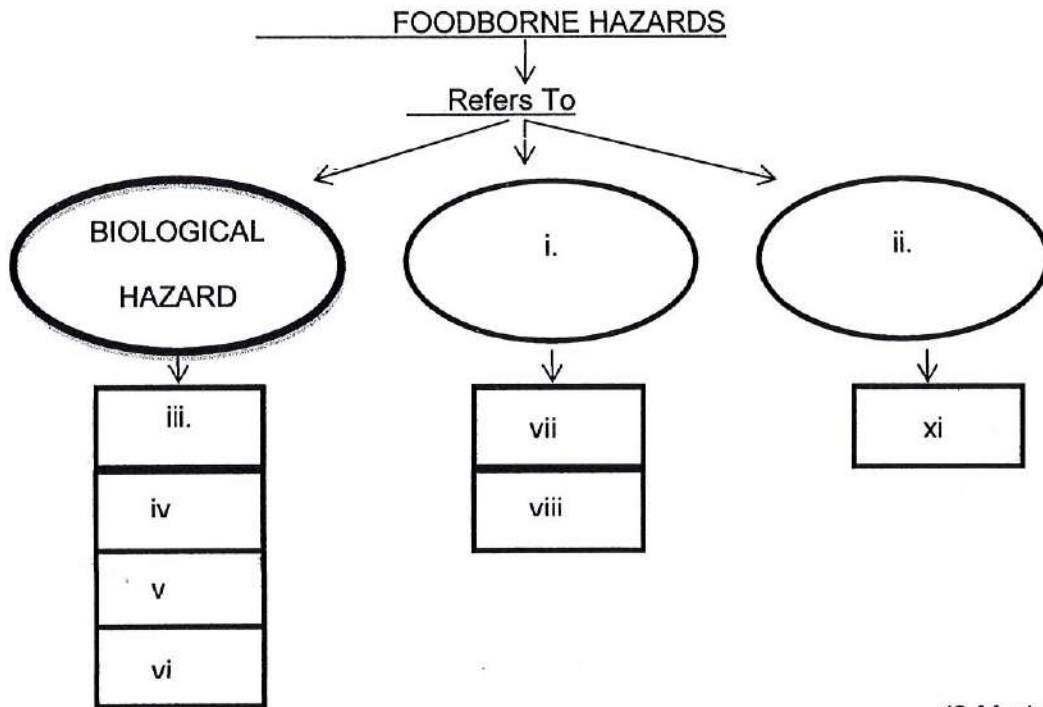
**QUESTION 2 (15 MARKS)**

Foodborne Hazard can cause illness or injury when consumed along with the food.

*(Penyakit Bawaan Makanan boleh menyebabkan sakit atau kecederaan apabila dimakan bersama makanan.)*

a. Complete the table of Foodborne Hazards given.

*(Lengkapkan rajah Bahaya Bawaan Makanan yang diberikan.)*



(9 Marks)

b. Define the meaning of:

*(Nyatakan maksud:)*

i. Sporeforming bacteria

(2 Marks)

ii. Nonsporeforming bacteria.

(2 marks)

c. Give **ONE (1)** example of:

*(Nyatakan maksud:)*

i. sporeforming bacteria.

(1 Mark)

ii. nonsporeforming bacteria.

(1 mark)

**QUESTION 3 (15 MARKS)**

Foodservice establishments should be safe to work in. A safe and clean establishment increases productivity and profit.

*(Industri dan premis makanan mestilah menjadi tempat yang selamat untuk bekerja.*

*Industri dan premis yang selamat dan bersih akan meningkatkan produktiviti dan keuntungan.)*

- a. There are **FIVE (5)** common types of injuries happened in Food Establishment. Identify them.

*(Terdapat **LIMA (5)** jenis kecederaan yang biasa berlaku di Industri Pemakanan. Nyatakannya.)*

(5 Marks)

- b. Describe the **SYMPTOMS** of burning in the diagram given.

*(Jelas dan lengkapkan **SIMPTOM** kebakaran pada diagram ini.)*

Degree of Burning	Symptoms
First degree burn	i.
Second Degree burn	ii.
Third degree burn	iii.

(3 Marks)

- c. Each Food Establishment must have a basic first-aid-kit, placed readily in the safe and accessible area. List **THREE (3)** examples of items in the first-aid kit.

*(Setiap industri dan premis makanan mestilah mempunyai peti pertolongan cemas serta disimpan ditempat yang selamat dan mudah dilihat. Nyatakan **TIGA (3)** contoh alatan yang ada didalam peti pertolongan cemas.)*

(3 Marks)

- d. Explain in detail the **FOUR (4)** STEPS that you must do if an accident happened to a friend in the kitchen.

*(Nyatakan dengan jelas **EMPAT (4)** LANGKAH yang mesti dilakukan jika kawan anda mengalami kemalangan didapur)*

(4 Marks)

**QUESTION 4 (15 MARKS)**

Micro-organism live in and on human body and it can cause foodborne illness to us.

*(Mikrob hidup pada permukaan dan didalam tubuh manusia, dan keadaan ini boleh menyebabkan Penyakit Bawaan Makanan.)*

a. Identify **SIX (6)** SYMPTOMS of foodborne illness.

*(Nyatakan ENAM (6) SIMPTOM Penyakit Bawaan Makanan.)*

(6 Marks)

b. Define ONSET TIME.

*(Jelaskan maksud "ONSET TIME".)*

(2 Marks)

c. List another **FOUR (4)** groups of human/people that are highly susceptible (can easily get) with the onset time. mudah dipengaruhi.

*(Nyatakan EMPAT (4) lagi kumpulan manusia yang senang mendapat "onset time".)*

Infant
i.
ii.
iii.
iv.

(4 Marks)

d. Complete the table given with another **THREE (3)** FACTORS that influence the range of hours in onset time.

*(Lengkapkan rajah dibawah ini dengan TIGA (3) lagi FAKTOR yang boleh mempengaruhi jangkamasa "onset time" ini.)*

Age
i.
ii.
iii.

(3 Marks)

**QUESTION 5 (10 MARKS)**

Every year thousands of people all over the world fall ill after consuming food that seemed absolutely normal but actually contaminated by harmful microorganisms.

*(Setiap tahun, beribu manusia diseluruh dunia mendapat sakit setelah memakan makanan yang nampaknya selamat tetapi sebenarnya telah tercemar oleh mikrob berbahaya.)*

a. Complete the diagram with another **THREE (3)** types of food spoilage.

*(Lengkapkan diagram ini dengan **TIGA (3)** penyebab kerosakan makanan.)*

Microbiological
i.
ii.
iii.

(3 Marks)

b. Define **IN DETAIL** the meaning of Cross Contamination.

*(Nyatakan **DENGAN LENGKAP** maksud Pindahan Pencemaran.)*

(3 Marks)

c. Give **ONE (1)** answer each:

*(Berikan **SATU (1)** sahaja jawapan untuk setiap soalan berikut.)*

i. The **EXAMPLE** of Cross contamination.

*(Contoh Pindahan Pencemaran)*

(2 Marks)

ii. How to **AVOID** Cross contamination.

*(Bagaimana **MENGELAKKAN** Pindahan Pencemaran.)*

(2 Marks)

**END OF QUESTION PAPER**

