Paper 1

1 Which of the following shows an algae?
Antara yang berikut, yang manakah alga?

A

C

B

D

2 Diagram 1 shows examples of microorganisms.
Rajah 1 menunjukkan contoh-contoh mikroorganisma.

Diagram 1/ *Rajah 1*

Which group represents the microorganisms?
Kumpulan manakah yang mewakili mikroorganisma tersebut?

A Algae
Alga
B Bacteria
Bakteria
C Protozoa
Protozoa
D Fungi
Kulat

3 Which of the following can only be observed using an electron microscope?
Antara yang berikut, yang manakah hanya boleh diperhatikan dengan menggunakan mikroskop elektron?

A Fungi
Kulat
B Virus
Virus
C Algae
Alga
D Protozoa
Protozoa

4 Diagram 2 shows an asexual reproduction of a microorganism.
Rajah 2 menunjukkan pembiakan aseks suatu mikroorganisma.

Diagram 2/ *Rajah 2*

What is the type of reproduction shown in Diagram 2?
Apakah jenis pembiakan yang ditunjukkan pada Rajah 2?

A Budding
Pertunasan
B Binary fission
Belahan dedua
C Conjugation
Konjugasi
D Spore formation
Pembentukan spora

5 Which of the microorganisms undergoes photosynthesis?
Antara mikroorganisma berikut, yang manakah menjalankan fotosintesis?

A

C

B

D

6 Diagram 3 shows an example of microorganism.
Rajah 3 menunjukkan satu contoh mikroorganisma.

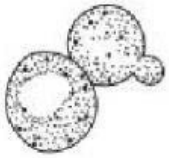

Diagram 3/ *Rajah 3*

What is the group of the microorganism shown?
Apakah kumpulan bagi mikroorganisma yang ditunjukkan?

A Algae
Alga
B Fungi
Kulat
C Bacteria
Bakteria
D Protozoa
Protozoa

7 Diagram 4 shows a type of microorganism.
Rajah 4 menunjukkan sejenis mikroorganisma.

Diagram 4/ *Rajah 4*

Which group belongs to this microorganism?
Dalam kumpulan manakah mikroorganisma ini tergolong?

A Fungi
Kulat
B Algae
Alga
C Virus
Virus
D Bacteria
Bakteria

LIVEWORKSHEETS

8 Table 1 shows the conditions of different petri dishes.
Jadual 1 menunjukkan keadaan piring petri yang berbeza.

Petri dish *Piring petri*	Temperature *Suhu* (°C)	Nutrient *Nutrien*
L	5	Present/ *Ada*
M	37	Present/ *Ada*
N	37	Absent/ *Tiada*
O	65	Present/ *Ada*

Table 1/ *Jadual 1*

Which petri dish will contain the most bacteria colonies after three days?
Piring petri yang manakah akan mengandungi koloni bakteria yang paling banyak selepas tiga hari?

A L
B M
C N
D O

9 Which temperature will destroy microorganisms and their spores?
Suhu yang manakah akan memusnahkan mikroorganisma dan sporanya?

A 0 °C
B 37 °C
C 70 °C
D 122 °C

10 Why are shrimps stored in the fridge still fresh after 3 days?
Mengapakah udang yang disimpan di dalam peti sejuk masih segar selepas 3 hari?

A Microorganisms have died
Mikroorganisma telah mati
B Microorganisms freeze
Mikroorganisma membeku
C Enzymes in microorganisms have been destroyed
Enzim dalam mikroorganisma telah musnah
D The growth of microorganisms become slow
Pertumbuhan mikroorganisma menjadi perlahan

11 Diagram 5 shows some microorganisms.
Rajah 5 menunjukkan beberapa mikroorganisma.

Diagram 5/ *Rajah 5*

Which group do the microorganisms belong to?
Dalam kumpulan manakah mikroorganisma-mikroorganisma itu tergolong?

A Virus
Virus
B Algae
Alga
C Bacteria
Bakteria
D Protozoa
Protozoa

12 Which microorganism can make its own food?
Mikroorganisma manakah yang boleh membuat makanannya sendiri?

A Virus
Virus
B Algae
Alga
C Bacteria
Bakteria
D Protozoa
Protozoa

13 Diagram 6 shows examples of microorganisms.
Rajah 6 menunjukkan contoh-contoh mikroorganisma.

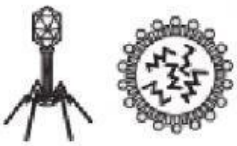

Diagram 6/ *Rajah 6*

Which of the following is the characteristic of the microorganisms?
Antara yang berikut, yang manakah ciri mikroorganisma itu?

A Reproduce through spores
Membiak melalui spora
B Reproduce in host cells
Membiak di dalam sel perumah
C Has nucleus and chloroplast
Mempunyai nukleus dan kloroplas
D Has no fixed shape
Tiada bentuk tetap

14 Diagram 7 shows a type of microorganism undergo process X.
Rajah 7 menunjukkan sejenis mikroorganisma menjalankan proses X.

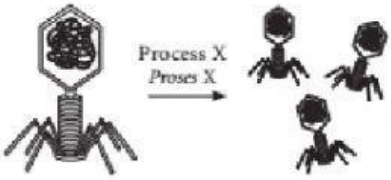

Diagram 7/ *Rajah 7*

How does process X occur?
Bagaimanakah proses X berlaku?

A By binary fission
Melalui belahan dedua
B By conjugation
Melalui konjugasi
C Microorganism infect host cells
Mikroorganisma menjangkiti sel perumah
D Microorganism produce spores
Mikroorganisma membentuk spora

LIVEWORKSHEETS

15 Diagram 8 shows a jar of pickled green chilli.
Rajah 8 menunjukkan sebalang jeruk cili hijau.

Diagram 8/ *Rajah 8*

Which factor makes the chilli to last longer?
Faktor manakah yang membuatkan cili itu tahan lama?

A pH value
Nilai pH
B Humidity
Kelembapan
C Temperature
Suhu
D Quality
Kualiti

16 Four petri dishes, W, X, Y and Z are stored in the dark for two days at several locations as shown in Diagram 9.
Empat piring petri, W, X, Y dan Z disimpan dalam gelap selama dua hari di beberapa lokasi seperti ditunjukkan pada Rajah 9.

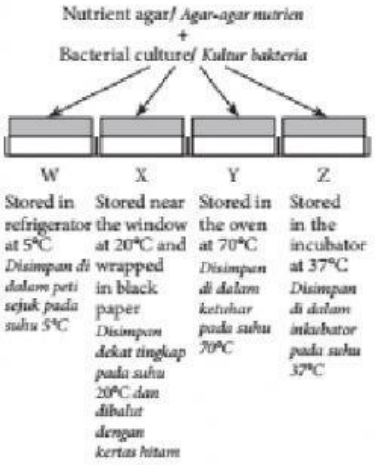

Diagram 9/ *Rajah 9*

Which petri dish shows the most bacterial colony outbreak?
Piring petri manakah menunjukkan penghasilan koloni bakteria yang paling banyak?

A W
B X
C Y
D Z

17 Which of the following is true about the benefits of microorganisms?
Antara yang berikut, yang manakah benar mengenai kebaikan penggunaan mikroorganisma?

A Bacteria helps herbivores in digesting cellulose
Bakteria membantu herbivor mencerna selulosa
B Virus can fix nitrogen gas to nitrates
Virus boleh mengikat gas nitrogen kepada nitrat
C Protozoa is used in baking bread
Protozoa digunakan untuk membuat roti
D Yeast is used to decompose oil spills in the sea
Yis digunakan untuk mengurai tumpahan minyak di laut

18 The information below is about the uses of microorganism X.
Maklumat di bawah adalah tentang kegunaan mikroorganisma X.

- It is used for producing alcoholic drinks.
  Ia digunakan untuk menghasilkan minuman beralkohol.
- It is used in bread and cake industries.
  Ia digunakan dalam industri roti dan kek.

What is microorganism X?
Apakah mikroorganisma X?

A Algae
Alga
B Yeast
Yis
C Mucor
Mukor
D Protozoa
Protozoa

19 Which of the following microorganisms is used to make cheese?
Antara mikroorganisma berikut, yang manakah digunakan untuk membuat keju?

A Algae
Alga
B Protozoa
Protozoa
C Bacteria
Bakteria
D Fungi
Kulat

20 Which microorganisms is able to convert nitrogen gas to nitrates?
Mikroorganisma yang manakah boleh menukarkan gas nitrogen kepada nitrat?

A Protozoa
Protozoa
B Bacteria
Bakteria
C Virus
Virus
D Algae
Alga

21 Microorganisms are used in the following aspects, **except**
Mikroorganisma digunakan dalam aspek yang berikut, ***kecuali***

A in the production of antibiotics.
dalam pembuatan antibiotik.
B in treating waste water.
dalam rawatan air sisa.
C in making eco enzyme cleaning solution.
dalam pembuatan larutan pembersih ekoenzim.
D in the production of plastics.
dalam penghasilan plastik.

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22 Which microorganism is used in the production of vaccine?
Mikroorganisma manakah yang digunakan dalam penghasilan vaksin?

A Virus
Virus
B Algae
Alga
C Protozoa
Protozoa
D Fungi
Kulat

23 Diagram 10 shows the observation when microorganism P is mixed in the bread dough.
Rajah 10 menunjukkan pemerhatian apabila mikroorganisma P dicampurkan ke dalam adunan roti.

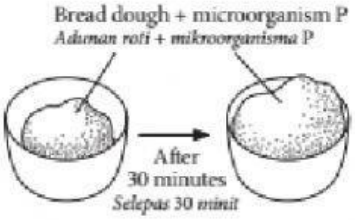

Diagram 10/ ***Rajah 10***

Which of the following is P?
Antara yang berikut, yang manakah P?

A Yeast
Yis
B Mucor
Mukor
C Penicillium
Penisilium
D Lactobacillus
Laktobasilus

24 A nurse is assigned to an area that is hit by cholera epidemic.
Which action should be taken to prevent herself from being infected by the disease?
Seorang jururawat ditugaskan ke kawasan yang dilanda wabak taun.
Langkah manakah yang perlu diambil untuk mencegah dirinya daripada dijangkiti penyakit itu? KBAT

A Wear face mask
Pakai penutup muka
B Avoid physical contact with patient
Elakkan sentuhan fizikal dengan pesakit
C Taking bath three times a day
Mandi tiga kali sehari
D Drink boiled water
Minum air yang telah dididihkan

25 Diagram 11 shows the observation obtained when filter papers soaked in solution T is placed in bacteria culture.
Rajah 11 menunjukkan pemerhatian yang diperoleh apabila kertas turas yang direndam dalam larutan T diletakkan di dalam kultur bakteria.

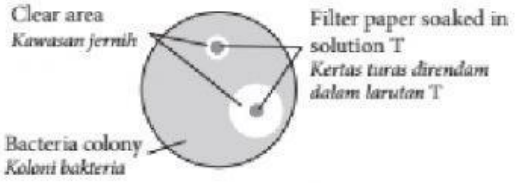

Diagram 11/ ***Rajah 11***

What is solution T?
Apakah larutan T?

A Antibody
Antibodi
B Antiserum
Antiserum
C Antibiotic
Antibiotik
D Distilled water
Air suling

26 Diagram 12 shows the effect of antibiotic on the growth of bacteria.
Rajah 12 menunjukkan kesan antibiotik terhadap pertumbuhan bakteria.

Diagram 12/ ***Rajah 12***

Which statement explains the clear area on the nutrient agar?
Pernyataan manakah yang menerangkan tentang kawasan jernih pada agar-agar nutrien?

A Area without nutrient
Kawasan tanpa nutrien
B Area where bacteria do not grow
Kawasan di mana bakteria tidak tumbuh
C Area where penicillin solution has permeated
Kawasan di mana larutan penisilin telah meresap
D Area where nutrient is in liquid form
Kawasan di mana nutrien dalam bentuk cecair

27 What is the use of Penicillin?
Apakah kegunaan Penisilin?

A Antigen
Antigen
B Antibiotic
Antibiotik
C Antiseptic
Antiseptik
D Antiserum
Antiserum

28 What can be used to treat shingles?
Apakah yang boleh digunakan untuk merawat kayap?

A An antiserum
Antiserum
B An antibiotic
Antibiotik
C An antiseptic
Antiseptik
D An antiviral
Antiviral

29 Which method is the most suitable to sterilise wounds?
Cara manakah yang paling sesuai untuk mensterilkan luka?

A Using disinfectant
Menggunakan disinfektan
B Using gamma radiation
Menggunakan sinar gama
C Using ultraviolet rays
Menggunakan sinar ultra ungu
D Using antiseptic
Menggunakan antiseptik

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