

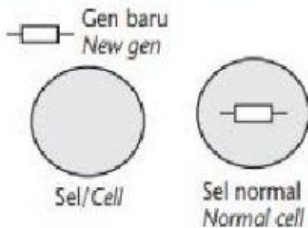
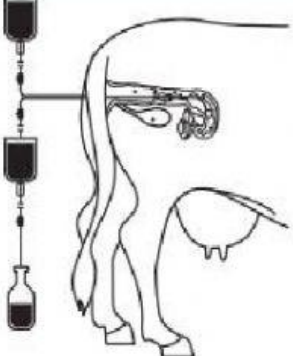
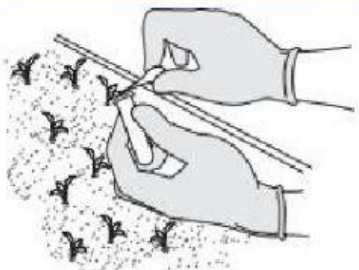
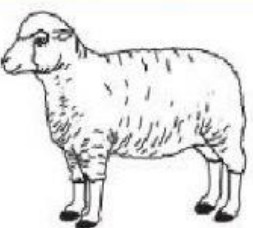


NAMA:

TARIKH:

Arahan: Mohon baca soalan dengan teliti dan jawab sebaik mungkin.

TP2 ~ Tarik pilihan jawapan dan letakkan di garisan hitam jawapan.

| Bakteria<br><i>Bacteria</i>                                                                                                                                                                                                                                                                                 | Embrio<br><i>Embryo</i>                                                                                                                                                                                               | Insulin<br><i>Insulin</i>                                                                                                                                                                                                                                                                                                                              | Pengklonan<br><i>Cloning</i>                                                                                                                                                                                                                                                                                                                                                                                   | Termodifikasi<br><i>Modified</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Terapi gen<br><i>Gene therapy</i> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| <p>(a)</p>  <p>_____ menggunakan gen untuk merawat atau mencegah penyakit dengan menyuntik gen ke dalam sel pesakit.</p> <p>_____ uses genes to treat or prevent a disease by inserting a gene into a patient's cells.</p> | <p>(b)</p>  <p>Pemindahan _____ boleh dilakukan pada haiwan ternakan./ _____ transplantation can be done on livestock breeding.</p> | <p>(c)</p>  <p>Gen haiwan dimasukkan ke dalam nukleus _____ untuk menghasilkan _____ manusia dalam teknologi DNA rekombinan. <i>Genes from an animal cell can be inserted into the nucleus of a _____ to produce human _____ in recombinant DNA technology.</i></p> | <p>(d)</p>  <p>Dalam organisma _____ genetik (GMO), DNA daripada organisma dimasukkan ke dalam tanaman atau ternakan untuk mendapatkan ciri-ciri yang diinginkan.</p> <p><i>In genetically _____ organisms (GMOs), DNA from organisms are inserting into plants or livestock to obtain the desired characteristics.</i></p> | <p>(e)</p>  <p>_____ menghasilkan organisma baharu yang menyerupai induknya. (Contoh: Kambing biri-biri Dolly.) Kini, tumbuhan dan haiwan yang mempunyai ciri-ciri yang diinginkan telah berjaya diklonkan./ _____ produces a new organism that is identical to its parent. (Example: Dolly the sheep.) Now, plants and animals which possess desired characteristics have successfully been cloned.</p> |                                   |

**TP4 ~** Pilih jawapan yang betul untuk petak - petak.

Berikan 3 kelebihan dan 3 kelemahan organisma yang termodifikasi genetik.

| Kelebihan<br><i>Advantages</i> | Kelemahan<br><i>Disadvantages</i> |
|--------------------------------|-----------------------------------|
|                                |                                   |
|                                |                                   |
|                                |                                   |

**GENETICALLY MODIFIED  
ORGANISM**

