***BLOW FLY LIFE CYCLE:***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Stage | Size mm | Color | First Appearance | Duration of Phase | Characteristics |
| egg | 2 | white | Soon after death | 8 hours | Found in warm areas of body --orifices |
| Larva 1 | 5 | white | 1.8 days | 20 hours | Black mouth hooksThin bodySpiracle slit near anus |
| Larva 2 | 10 | White | 2.5 days | 15-20 hours | Black mouth hooks (anterior)Dark crop seen on anterior dorsal side Feeds actively 2 spiracle slits near anus |
| Larva 3 | 17 | White  | 4 – 5 days | 36 – 56 hrs | Black mouth hooksCrop not visible, covered by fat depositsFat bodyThree spiracles near anus |
| Pre-Pupa | 9 |  | 8 – 12 days | 86-180 hrs | Larva migrates away from body to dry area |
| Early and Late Pupa | 9 | Cream color changes to dark brown | 18 – 24 days | 6-12 days | Immobile does not feedChanges to dark brown with agePupa splits open prior to adult immergence |
| Adult | Varies | Black or green  | 21 -24 days | Several weeks | Incapable of flight for first hours |



|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. This is marked by a hard shell the maggot secretes in which it will change from teh larval to adult stage (1 point)

|  |  |
| --- | --- |
|  | Oviposition |
|  | Initial Decay |
|  | Pupation |
|  | Decay |

 |
| 1. During this stage house flies begin to appear and deposit eggs (1 point)

|  |  |
| --- | --- |
|  | fresh stage |
|  | decay stage |
|  | bloated stage |
|  | post-decay stage |

 |
| 1. The life cycle of a blow fly begins with... (1 point)

|  |  |
| --- | --- |
|  | migration phase |
|  | decay |
|  | pupation |
|  | oviposition |

 |
| 1. This stage occurs because of the activity bacteria which produces gases inside the body. (1 point)

|  |  |
| --- | --- |
|  | decay stage |
|  | post-decay stage |
|  | fresh stage |
|  | bloated stage |

 |
| 1. During this stage/phase, the larvae stops feeding and travels several feet away from teh corpse. (1 point)

|  |  |
| --- | --- |
|  | Initial Decay |
|  | Fresh Stage |
|  | Bloated Stage |
|  | Migration Phase |

 |
| 1. Insects have been on earth for about (1 point)

|  |  |
| --- | --- |
|  | 200,000 years |
|  | 100,000,000 years |
|  | 250,000,000 years |
|  | 100,000 years |

 |
| 1. Man has existed for approximately (1 point)

|  |  |
| --- | --- |
|  | 100,000 years |
|  | 1 million years |
|  | 300,000 years |
|  | 500 years |

 |
| 1. The most important specimen collected by a forensic entomologist is... (1 point)

|  |  |
| --- | --- |
|  | the newest life stage present on the body. |
|  | the oldest life stage present on the body. |
|  | the number of flies on the body. |
|  | the number of eggs deposited in the body |

 |
| 1. An important clue to the condition of a body at death is the location of the \_\_\_\_\_\_\_\_\_\_\_\_\_. (1 point)

|  |  |
| --- | --- |
|  | flies |
|  | beetles |
|  | larval mass |
|  | heart |

 |
| 1. Decomposition of a mammal begins at this stage... (1 point)

|  |  |
| --- | --- |
|  | decay stage |
|  | fresh stage |
|  | bloated stage |
|  | post-decay stage |

 |
| 1. An adult fly emerges from the (1 point)

|  |  |
| --- | --- |
|  | oviposition |
|  | pupa |
|  | larval mass |
|  | egg |

 |
| 1. During this stage, beetles begin to colonize the body and consume the dry, less nutrient-rich components. (1 point)

|  |  |
| --- | --- |
|  | post-decay stage |
|  | fresh stage |
|  | decay stage |
|  | bloated stage |

 |
| 1. This stage begins with the splitting of the skin to allow the gases to escape. (1 point)

|  |  |
| --- | --- |
|  | decay stage |
|  | bloated stage |
|  | fresh stage |
|  | post-decay stage |

 |
| 1. During which stage does the body take on a compressed appearance and give off a powerful odor. (1 point)

|  |  |
| --- | --- |
|  | fresh stage |
|  | decay stage |
|  | bloated stage |
|  | post-decay stage |

 |
| 1. Post-mortem interval (PMI) is the (1 point)

|  |  |
| --- | --- |
|  | time that has passed since death. |
|  | the day after death. |
|  | time of death. |
|  | the month before death. |

 |
| 1. Silphidae and Scarabaeidae are types of (1 point)

|  |  |
| --- | --- |
|  | wasps |
|  | beetles |
|  | worms |
|  | flies |

 |
| 1. Degree days or degree hours are the number of days/hours multiplied by the number of \_\_\_\_\_\_\_\_\_\_\_ above a threshold temperature. (1 point)

|  |  |
| --- | --- |
|  | degrees |
|  | weeks |
|  | months |
|  | days |

 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. This is marked by a hard shell the maggot secretes in which it will change from teh larval to adult stage

|  |  |
| --- | --- |
| •  | Oviposition |
| •  | Initial Decay |
| •  | Pupation (correct answer, your response) |
| •  | Decay |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. During this stage house flies begin to appear and deposit eggs

|  |  |
| --- | --- |
| •  | fresh stage (your response) |
| •  | decay stage |
| •  | bloated stage (correct answer) |
| •  | post-decay stage |

1. **Points earned:** 0 out of 1
 |
|   |
| 1. The life cycle of a blow fly begins with...

|  |  |
| --- | --- |
| •  | migration phase |
| •  | decay (your response) |
| •  | pupation |
| •  | oviposition (correct answer) |

1. **Points earned:** 0 out of 1
 |
|   |
| 1. This stage occurs because of the activity bacteria which produces gases inside the body.

|  |  |
| --- | --- |
| •  | decay stage |
| •  | post-decay stage |
| •  | fresh stage |
| •  | bloated stage (correct answer, your response) |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. During this stage/phase, the larvae stops feeding and travels several feet away from teh corpse.

|  |  |
| --- | --- |
| •  | Initial Decay |
| •  | Fresh Stage |
| •  | Bloated Stage |
| •  | Migration Phase (correct answer, your response) |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. Insects have been on earth for about

|  |  |
| --- | --- |
| •  | 200,000 years |
| •  | 100,000,000 years |
| •  | 250,000,000 years (correct answer, your response) |
| •  | 100,000 years |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. Man has existed for approximately

|  |  |
| --- | --- |
| •  | 100,000 years |
| •  | 1 million years |
| •  | 300,000 years (correct answer, your response) |
| •  | 500 years |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. The most important specimen collected by a forensic entomologist is...

|  |  |
| --- | --- |
| •  | the newest life stage present on the body. |
| •  | the oldest life stage present on the body. (correct answer, your response) |
| •  | the number of flies on the body. |
| •  | the number of eggs deposited in the body |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. An important clue to the condition of a body at death is the location of the \_\_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |
| --- | --- |
| •  | flies |
| •  | beetles |
| •  | larval mass (correct answer, your response) |
| •  | heart |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. Decomposition of a mammal begins at this stage...

|  |  |
| --- | --- |
| •  | decay stage (your response) |
| •  | fresh stage (correct answer) |
| •  | bloated stage |
| •  | post-decay stage |

1. **Points earned:** 0 out of 1
 |
|   |
| 1. An adult fly emerges from the

|  |  |
| --- | --- |
| •  | oviposition |
| •  | pupa (correct answer, your response) |
| •  | larval mass |
| •  | egg |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. During this stage, beetles begin to colonize the body and consume the dry, less nutrient-rich components.

|  |  |
| --- | --- |
| •  | post-decay stage (correct answer, your response) |
| •  | fresh stage |
| •  | decay stage |
| •  | bloated stage |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. This stage begins with the splitting of the skin to allow the gases to escape.

|  |  |
| --- | --- |
| •  | decay stage (correct answer, your response) |
| •  | bloated stage |
| •  | fresh stage |
| •  | post-decay stage |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. During which stage does the body take on a compressed appearance and give off a powerful odor.

|  |  |
| --- | --- |
| •  | fresh stage |
| •  | decay stage (correct answer, your response) |
| •  | bloated stage |
| •  | post-decay stage |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. Post-mortem interval (PMI) is the

|  |  |
| --- | --- |
| •  | time that has passed since death. (correct answer, your response) |
| •  | the day after death. |
| •  | time of death. |
| •  | the month before death. |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. Silphidae and Scarabaeidae are types of

|  |  |
| --- | --- |
| •  | wasps |
| •  | beetles (correct answer, your response) |
| •  | worms |
| •  | flies |

1. **Points earned:** 1 out of 1
 |
|   |
| 1. Degree days or degree hours are the number of days/hours multiplied by the number of \_\_\_\_\_\_\_\_\_\_\_ above a threshold temperature.

|  |  |
| --- | --- |
| •  | degrees (correct answer, your response) |
| •  | weeks |
| •  | months |
| •  | days |

1. **Points earned:** 1 out of 1
 |

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| **A person who specialises in the study of human skeletal remains within a legal context is known as a:** |
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|  |  |
| --- | --- |
|    | forensic anthropologist. |
|    | forensic scientist. |
|    | forensic odontologist. |
|    | forensic pathologist. |

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|  | Question 2.**Which of the following represents the best measure available for estimating the time of death (especially within the first 18 hours after death)?** |
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|    | Rigor mortis. |
|    | Hypostasis. |
|    | The development of cloudiness in the eyes. |
|    | Changes in body temperature. |

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|  | Question 3.**Forensic entomology is primarily concerned with the interpretation of insect evidence found in association with decomposing corpses discovered under suspicious circumstances. An examination of the development stages of the insects present may yield valuable information about:** |
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|    | the circumstances surrounding the death. |
|    | the post-mortem interval. |
|    | the identification of the deceased. |
|    | the age of the deceased. |

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|  | Question 4.**The post-mortem condition of hypostasis is also known as:** |
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|    | livor mortis. |
|    | cadaveric spasm. |
|    | putrefaction. |
|    | rigor mortis. |

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|  | Question 5.**The post-mortem process whereby a corpse is preserved through desiccation is termed:** |
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|    | myiasis. |
|    | putrefaction. |
|    | mummification. |
|    | skeletalisation. |

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|  | Question 6.**In Scotland, the medico-legal investigation of a reported death is carried out by a:** |
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|    | hospital authority. |
|    | Registrar of Births and Deaths. |
|    | Procurator Fiscal. |
|    | coroner. |

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|  | Question 7.**Annual statistics dating back to 1988 show that the largest category of verdicts returned at inquests in England and Wales is:** |
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| --- | --- |
|    | death from natural causes. |
|    | death by accident or misadventure. |
|    | suicide. |
|    | industrial diseases. |

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| --- | --- |
|  | Question 8.**Medico-legal autopsies are only performed by:** |
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| --- | --- |
|    | Home Office pathologists. |
|    | forensic scientists. |
|    | coroners. |
|    | general practitioners. |

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|  | Question 9.**In the case of skeletalised human remains, which of the following features is *not* of potential use in making a personal identification?** |
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| --- | --- |
|    | Tattoos. |
|    | Surgical implants. |
|    | Dentition. |
|    | Bone disorders. |

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|  | Question 10.**With regard to skeletalised human remains, which of the following may be used to estimate the age of an individual at the time of his or her death?** |
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|    | Photosuperimposition. |
|    | Facial reconstruction. |
|    | Epiphyseal union. |
|    | Adipocere formation. |

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|  | Question 11.**In the search for human remains, which of the following techniques is normally considered to be the most invasive?** |
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| --- | --- |
|    | Use of electrical resistivity survey. |
|    | Creation of vent holes, accompanied by the use of cadaver dogs. |
|    | Ground-based visual search. |
|    | Use of ground-penetrating radar (GPR). |

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| --- | --- | --- |
| http://wps.pearsoned.co.uk/wps/media/styles/1480/_skins_/D/default_blue/ps_bkgd_upper_left.gif | http://wps.pearsoned.co.uk/wps/media/styles/1480/_skins_/D/default_blue/pixel.gif | http://wps.pearsoned.co.uk/wps/media/styles/1480/_skins_/D/default_blue/ps_bkgd_upper_right.gif |
| http://wps.pearsoned.co.uk/wps/media/styles/1480/_skins_/D/default_blue/pixel.gif |

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| --- | --- |
|  | Question 12.**Which of the following is considered to be a passive geophysical survey technique?** |
| http://wps.pearsoned.co.uk/wps/media/styles/1480/_skins_/D/default_blue/problem_type_12.gif |
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| --- | --- |
|    | Electrical resistivity surveying. |
|    | Magnetrometry. |
|    | Ground-penetrating radar. |
|    | Sondage. |

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