



KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

PROVINCIAL STANDARDISED ASSESSMENT

GRADE 12

LIFE SCIENCES

JUNE 2026

MARKS: 150

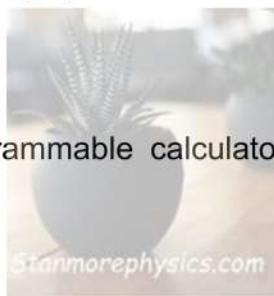
TIME: 2½ hours

N.B. This question paper consists of 16 pages including this page.

INSTRUCTIONS AND INFORMATION

Read the following instructions carefully before answering the questions.

1. Answer ALL the questions.
2. Write ALL the answers in the ANSWER BOOK.
3. Start the answers to EACH question at the top of a NEW page.
4. Number the answers correctly according to the numbering system used in this question paper.
5. Present your answers according to the instructions of each question.
6. Make ALL drawings in pencil and label them in blue or black ink.
7. Draw diagrams, tables or flow charts only when asked to do so.
8. The diagrams in this question paper are NOT necessarily drawn to scale.
9. Do NOT use graph paper.
10. You must use a non-programmable calculator, protractor and a compass, where necessary.
11. Write neatly and legibly.



SECTION A**QUESTION 1**

- 1.1 Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A to D) next to the question number (1.1.1 to 1.1.10) in your ANSWER BOOK, for example 1.1.11 D.

1.1.1 Which ONE of the following structures connects two chromatids together?

- A Chiasma
- B Centrosome
- C Centriole
- D Centromere

1.1.2 Which ONE of the following is a characteristic of altricial development?

- A Offspring is born with its eyes closed
- B Young is born with body covered in down feathers
- C Offspring has its eyes open at birth
- D Able to feed itself immediately after birth/hatching

1.1.3 The part of the female reproductive system where fertilisation takes place is ...

- A Ovary
- B Fallopian tube
- C Cervix
- D Vagina

1.1.4 Which ONE of the following is an importance of meiosis?

- A Producing diploid gametes
- B Doubling the chromosome number during gamete formation
- C Producing haploid somatic cells
- D Halving the chromosome number during gamete formation

1.1.5 A DNA molecule consists of ...

- A a single strand, with nucleotides that have deoxyribose sugar.
- B two strands, with nucleotides that have ribose sugar.
- C a single strand, with nucleotides that have ribose sugar.
- D two strands , with nucleotides that have deoxyribose sugar.

QUESTIONS 1.1.6 AND 1.1.7 ARE BASED ON THE INFORMATION BELOW.

The table below shows anti-codons coding for different amino acids.

ANTI-CODON	AMINO ACID
UAG	Aspartic acid
CUU	Valine
ACU	Serine
GAG	Arginine

A mutation occurred on a DNA molecule causing base triplet GAG to change into TAG. Stanmorephysics.com

1.1.6 This mutation will cause codon ...

- A CAC to change into AUC.
- B UAG to change into GAG.
- C CUC to change into AUC.
- D GAG to change into UAG.

1.1.7 It can be concluded that the protein will contain ...

- A Serine instead of Arginine.
- B Valine instead of Aspartic acid.
- C Arginine instead of Aspartic acid.
- D Aspartic acid instead of Arginine.

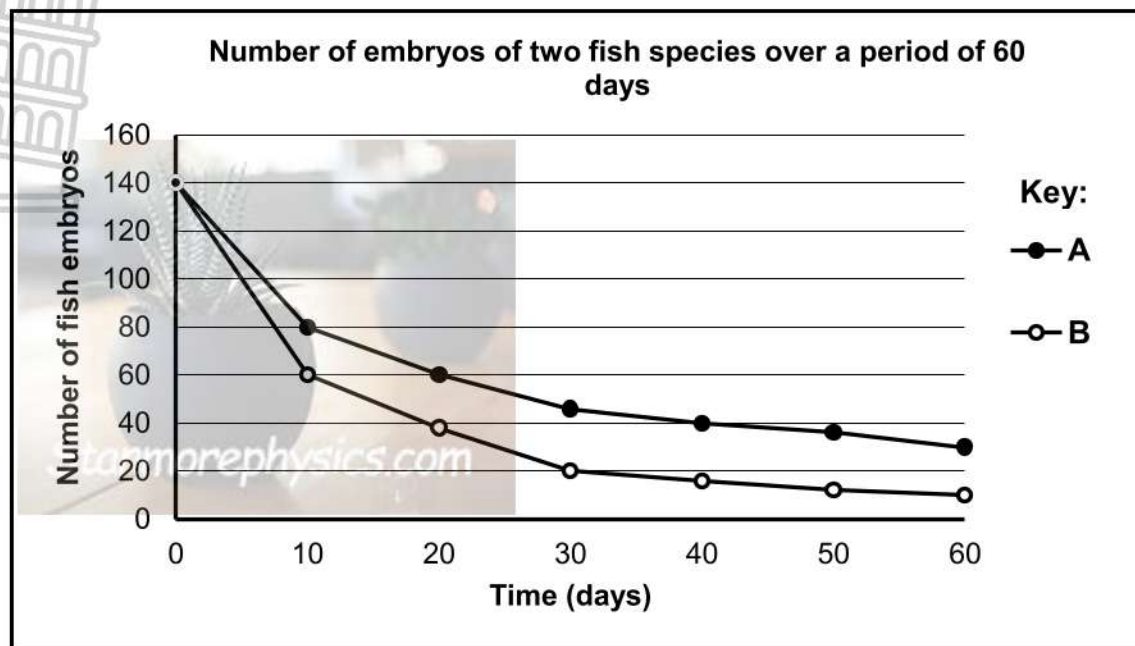
1.1.8 Below is a list of events during the process of protein synthesis.

- (i) The required protein is formed
- (ii) tRNA brings the required amino acid to the ribosome
- (iii) Each tRNA carries a specific amino acid
- (iv) Amino acids become attached to each other by peptide bonds
- (v) Anticodon on the tRNA matches with the codon on the mRNA

Which ONE is the correct sequence of events during translation?

- A (iii) → (v) → (ii) → (i) → (iv)
- B (ii) → (iv) → (v) → (iii) → (i)
- C (iii) → (v) → (ii) → (iv) → (i)
- D (ii) → (v) → (i) → (iii) → (iv)

QUESTIONS 1.1.9 AND 1.1.10 ARE BASED ON THE FOLLOWING GRAPH SHOWING THE NUMBER OF EMBRYOS OF TWO FISH SPECIES (A AND B) THAT ARE OVIPAROUS.



1.1.9 The percentage decrease in the number of fish embryos of species **A** between day 10 and 40 is ...

- A 20%
- B 30%
- C 40%
- D 50%

1.1.10 Which ONE of the following combinations in relation to embryo survival and predation is CORRECT?

	SPECIES	EMBRYO SURVIVAL	PREDATION
A	Species A	Higher number of surviving embryos	Reduced risk of predation
B	Species A	Lower number of surviving embryos	Increased risk of predation
C	Species B	Higher number of surviving embryos	Increased risk of predation
D	Species B	Lower number of surviving embryos	Reduced risk of predation

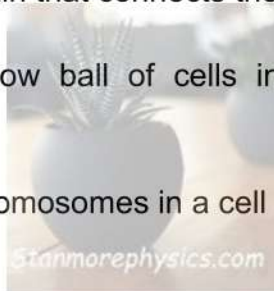
(10 x 2)

(20)

- 1.2 Give the correct **biological term** for each of the following descriptions. Write only the term next to the question number (1.2.1 to 1.2.10) in the ANSWER BOOK.



- 1.2.1 A segment on a chromosome coding for a characteristic
- 1.2.2 The hormone responsible for the development of a Graafian follicle
- 1.2.3 An extra embryonic membrane that stores waste in amniotic eggs
- 1.2.4 The production of ova by meiosis Stanmorephysics.com
- 1.2.5 The innermost lining of the uterus which is richly supplied with blood vessels
- 1.2.6 The structure in the ovary that secretes progesterone
- 1.2.7 The maintenance of a constant internal environment in humans
- 1.2.8 The part of the brain that connects the two hemispheres
- 1.2.9 A fluid filled, hollow ball of cells into which the fertilised ovum develops
- 1.2.10 A single set of chromosomes in a cell (10 × 1) **(10)**

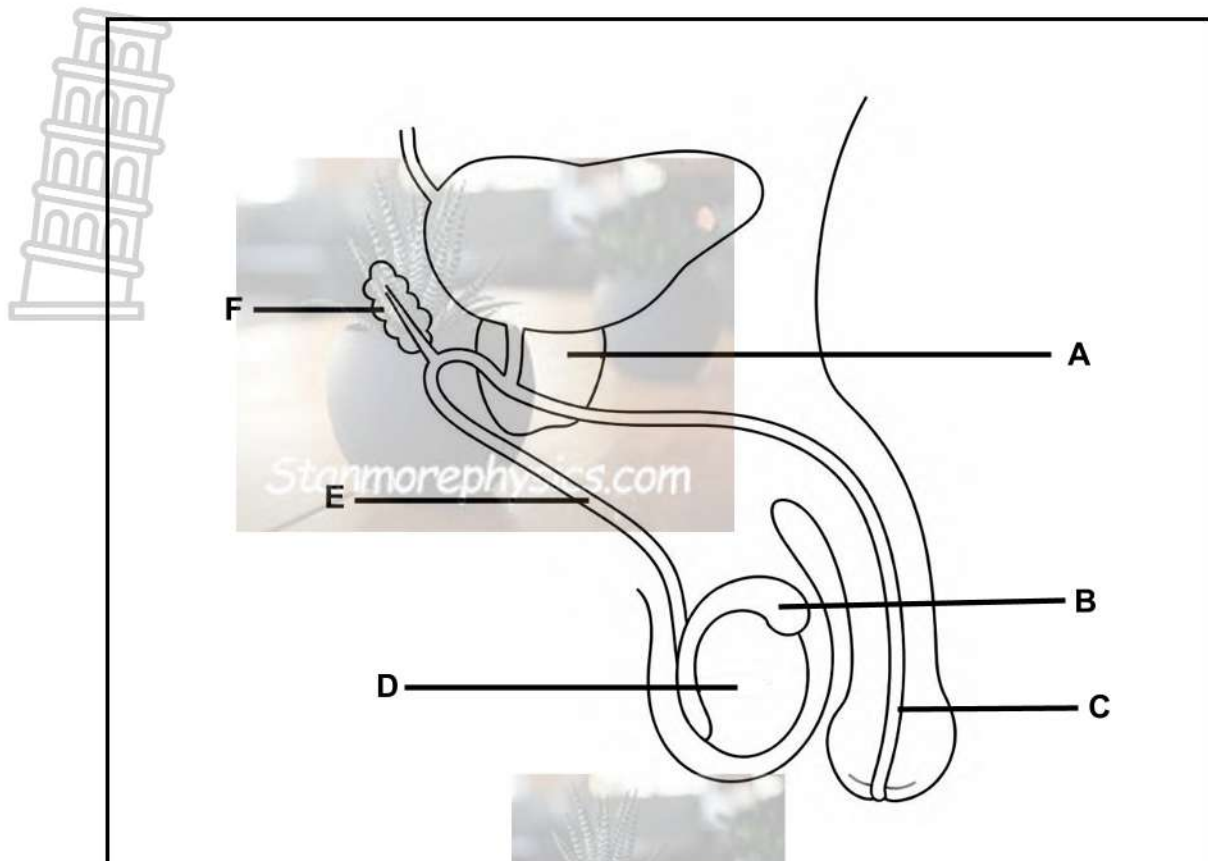


- 1.3 Indicate whether each of the descriptions in COLUMN I applies to **A ONLY**, **B ONLY**, **BOTH A AND B** or **NONE** of the items in COLUMN II. Write **A only**, **B only**, **both A and B** or **none** next to the question number (1.3.1 to 1.3.3) in the ANSWER BOOK.

COLUMN I		COLUMN II	
1.3.1	Constriction of blood vessels in humans	A:	Cold temperature
		B:	Hot temperature
1.3.2	Giving birth to live young ones	A:	Viviparous
		B:	Oviparous
1.3.3	Stimulates conversion of glycogen into glucose	A:	Glucagon
		B:	Insulin

(3 × 2) **(6)**

1.4 The diagram below shows a male reproductive system.



1.4.1 Identify part:

- (a) **A** (1)
- (b) **E** (1)
- (c) **F** (1)

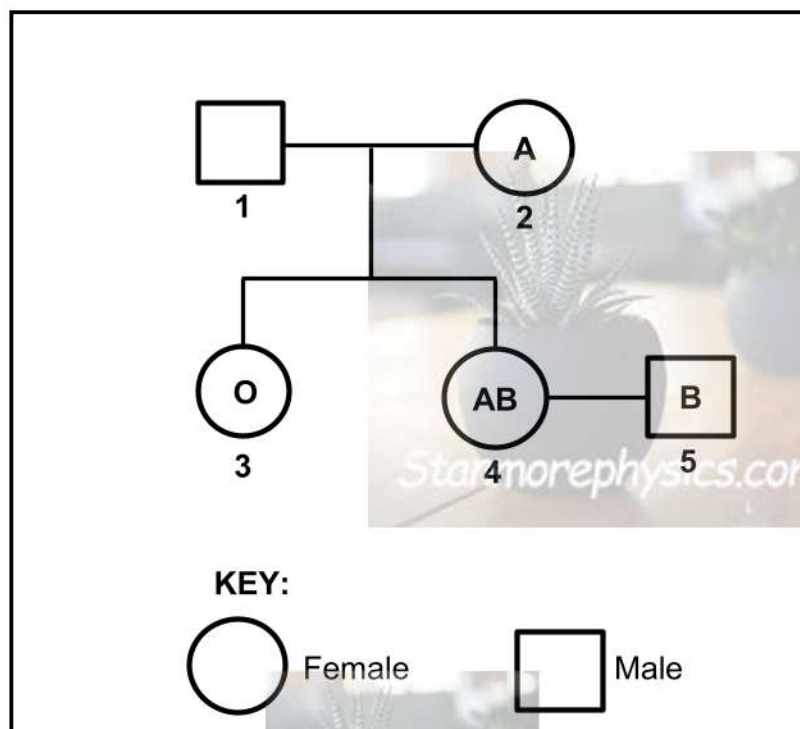
1.4.2 Give the LETTER and the NAME of the part that:

- (a) Produces male gametes (2)
- (b) Transports semen out of the body (2)
- (7)

1.5 The pedigree diagram below shows the inheritance of blood groups in a family.



Blood groups of individuals **2**, **3**, **4** and **5** are indicated on the diagram.



1.5.1 How many alleles control blood group in humans? (1)

1.5.2 Give the:

(a) Blood group of individual **1** (1)

(b) Genotype of individual **3** (1)

(c) Possible phenotype(s) of children of individual **4** and **5** (2)

1.5.3 Individuals **1** and **2** are planning to have a fourth child.

Give the percentage chance that they will have a:

(a) Female child Stanmorephysics.com (1)

(b) Child with blood group **B** (1)

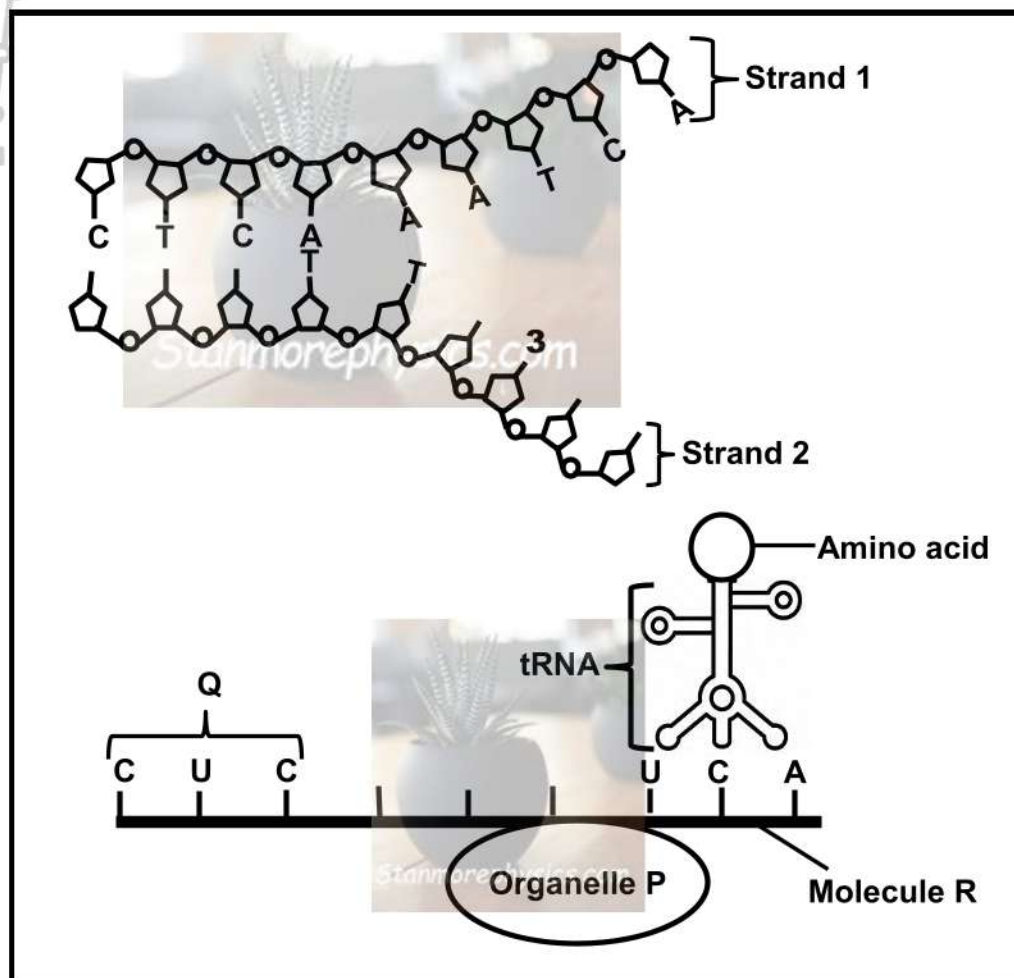
(7)

TOTAL SECTION A: 50

SECTION B

QUESTION 2

2.1 The diagram below shows a part of the process of protein synthesis.



2.1.1 Identify:

- (a) Organelle **P** (1)
- (b) Molecule **R** (1)
- (c) The nitrogen base at **3** (1)

2.1.2 Give the collective name for the nitrogen bases labelled **Q**. (1)

2.1.3 Which strand (**1** or **2**) was used as a template to form molecule **R**? (1)

2.1.4 State TWO functions of a DNA molecule. (2)

2.1.5 Name and describe the process that resulted in the formation of molecule **R**. (6)

(13)

- 2.2 DNA profiling is a critical forensic tool that can be used to determine paternity based on individuals' genetic code. It is an incredibly accurate scientific method. Without a DNA test, you cannot be 100% certain of paternity, as appearance is subjective and unreliable.

2.2.1 Give ONE:

- (a) Other use of DNA profiling (1)
- (b) Reason why some people may be against the use of DNA profiling (1)
- (c) Reason why DNA profiling is regarded as an incredibly accurate scientific method (1)

- 2.2.2 The DNA profiles of the mother, the child and the possible father have been collected and analysed.

Explain how this could be used to prove that the man is the biological father of the child.

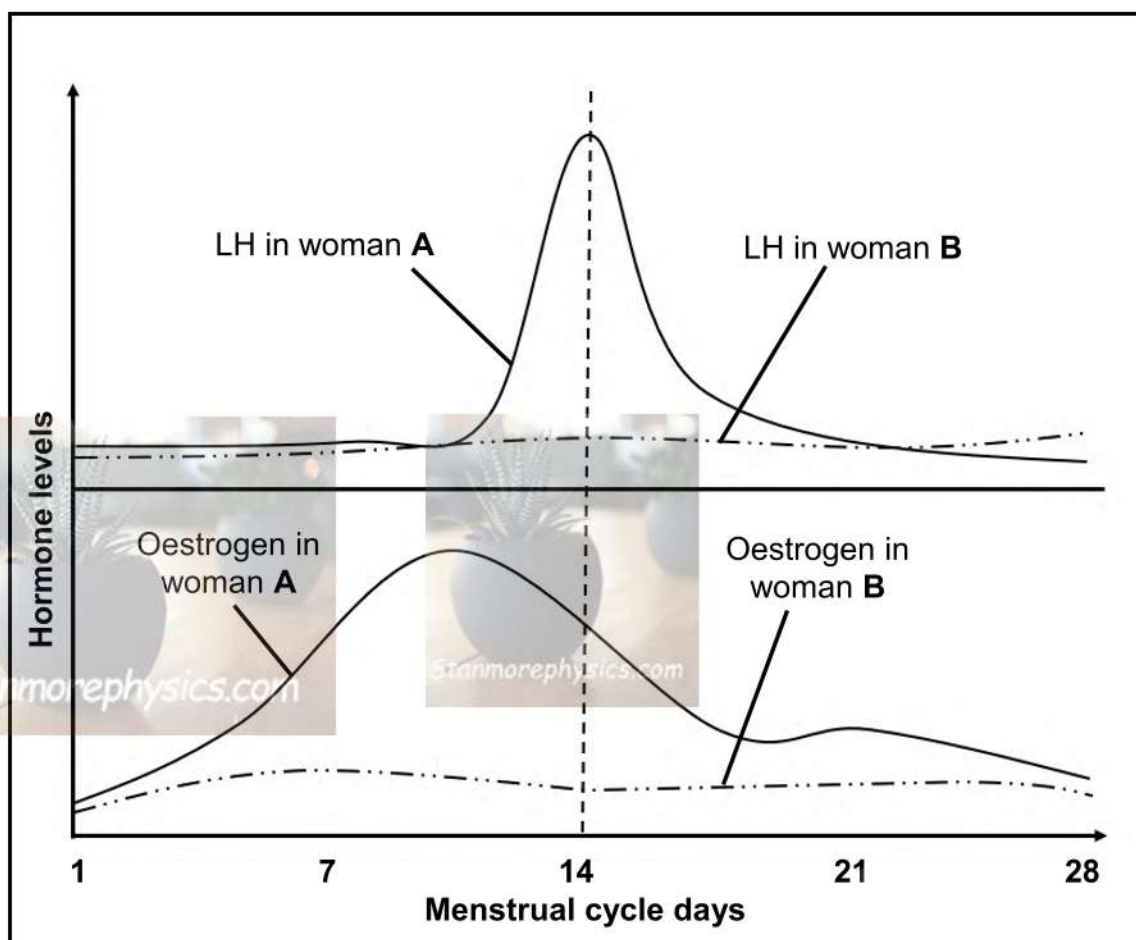
(2)
(5)

2.3 The graph below shows the LH and oestrogen levels of two women during a menstrual cycle:

Woman A: A healthy woman without a stress.

Woman B: A woman with a severe chronic stress for over a year.

Both women were struggling to get pregnant. They were given the same food daily and were living in the same environmental conditions.



2.3.1 Name the gland that secretes:

(a) Oestrogen (1)

(b) LH (1)

2.3.2 Explain:

(a) The significance of the level of LH on day 14 as shown in woman **A** (3)

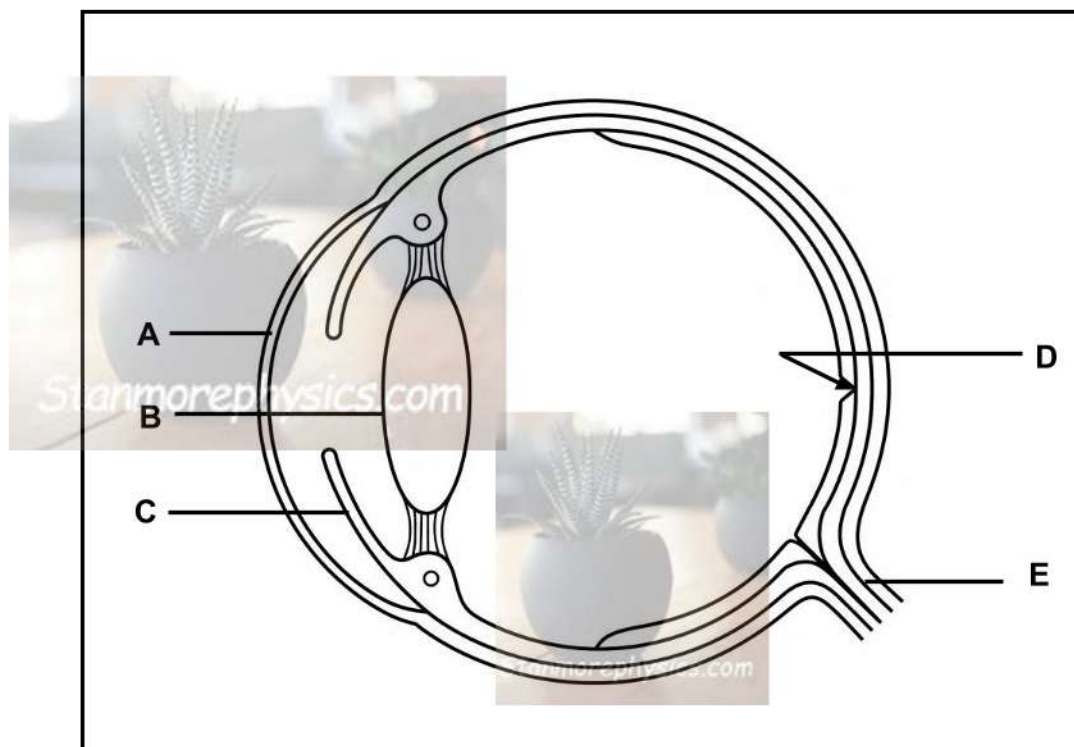
(b) How the level of oestrogen in woman **B** may affect pregnancy (3)

(8)

- 2.4 Presbyopia is a natural condition that develops with age and affects the eye's ability to focus on nearby objects. It happens when the eye's natural lens becomes harder and less flexible over time.

Common symptoms include blurred near vision, eye strain, and holding reading materials at a distance.

The diagram below represents the structure of the eye.



2.4.1 Give the LETTER of the part that:

- (a) Transmits nerve impulse to the cerebrum (1)
- (b) Refracts light the most (1)

2.4.2 Describe the changes that occur in part **C** when the lights are switched off. (2)

2.4.3 Give TWO symptoms of presbyopia mentioned above. (2)

2.4.4 Explain:

- (a) The effect of presbyopia on part **B** when reading a book (3)
- (b) How vision may be affected if part **D** is damaged (2)

(11)

- 2.5 A learner accidentally touches a hot metal surface during a practical investigation in the laboratory. The learner reacted immediately by withdrawing her hand without consciously thinking about it. This is called a reflex action.



2.5.1 Explain the significance of a reflex action. (2)

2.5.2 Describe the path taken by the nerve impulse from the time the learner touches the hot surface until she pulls her hand away. (5)

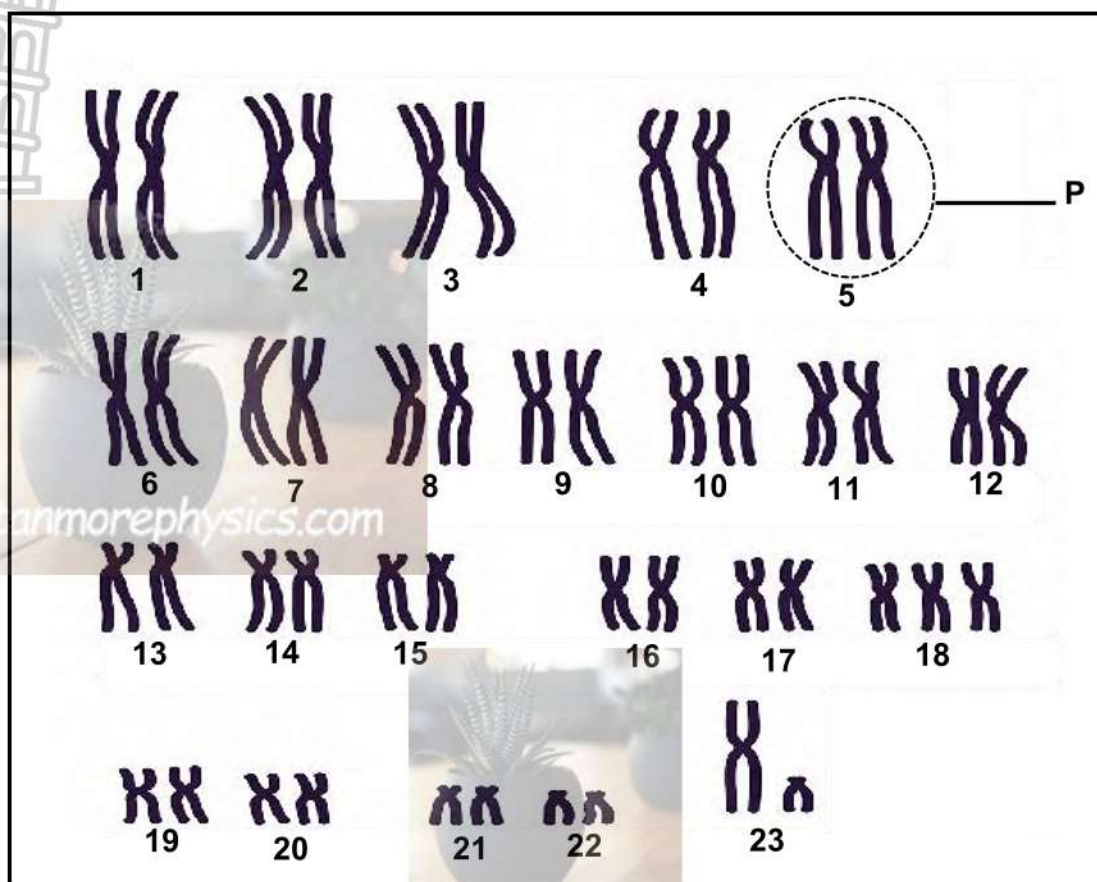
(7)

- 2.6 Describe the process of hearing. (6)
[50]



QUESTION 3

- 3.1 The diagram below shows the number and arrangement of chromosomes in a human somatic cell.



- 3.1.1 Name the diagram shown above. (1)
- 3.1.2 Identify part **P**. (1)
- 3.1.3 Give TWO characteristics of the part identified in QUESTION 3.1.2. (2)
- 3.1.4 How many autosomes are shown in this diagram? (1)
- 3.1.5 State ONE reason why the diagram shown above belongs to a male. (1)
- 3.1.6 Give the chromosome pair number that: (1)
- (a) Shows abnormality (1)
- (b) Represents gonosomes (1)
- 3.1.7 Describe how the abnormality referred to in QUESTION 3.1.6 (a) may have occurred. (4)

(12)

- 3.2 In a species of sea star (often called starfish), body colour and arm length are controlled by two different genes.

Body colour can either be green (**G**) or blue (**g**) while arms are either long (**L**) or short (**l**).

Two sea stars that are both heterozygous for body colour and arm length are crossed.

3.2.1 Give the:

- (a) Genotype of the parents (2)
- (b) Phenotypic ratio of the offspring (2)

3.2.2 Calculate the percentage chance that an offspring produced by these parents will have green body with short arms. Show ALL working. (3)
(7)

- 3.3 Sideroblastic anaemia is caused by a recessive allele **X^h** in humans. It causes reduced oxygen carrying capacity by the blood. The allele **X^H** causes normal oxygen carrying capacity.

A heterozygous female is crossed with an unaffected male.

3.3.1 Give the genotype of a female with sideroblastic anaemia. (1)

3.3.2 Explain:

- (a) How the energy levels will differ between an unaffected individual and an individual with sideroblastic anaemia (3)
- (b) why females are less likely to have sideroblastic anaemia than males (3)

3.3.3 Use a genetic cross to show the percentage chance of a heterozygous female and an unaffected male having a male offspring with sideroblastic anaemia. (6)
(13)

- 3.4 An investigation was conducted to determine the effect of exercise intensity on adrenalin levels.

The procedure was as follows:

- Permission was obtained from 30 healthy boys who were seventeen years old.
- The boys were divided into three equal groups.
- The boys in group **A** participated in low exercise intensity.
- The boys in group **B** participated in moderate exercise intensity.
- The boys in group **C** participated in high exercise intensity.
- All participants were given 30 minutes to exercise daily for five consecutive days.
- Adrenalin level was measured before and after exercise.
- Average levels of adrenalin after exercise were calculated and recorded on the table below.

Exercise intensity	Average level of Adrenalin(ng/mL)
Low	110
Moderate	160
High	220

- 3.4.1 Identify the:

- (a) Dependent variable (1)
- (b) Independent variable (1)

- 3.4.2 State TWO:

- (a) Planning steps that the researchers had to consider at the beginning of this investigation (2)
- (b) Other factors that should have been considered during this investigation (2)
- (c) Ways in which the reliability of the results was increased (2)

- 3.4.3 Explain why adrenalin levels were measured before the start of an exercise. (2)

- 3.4.4 State the conclusion for this investigation. (2)

- 3.4.5 Draw a bar graph to represent the results shown in the table. (6)
- (18)**
- [50]**

TOTAL SECTION B: 100
GRAND TOTAL: 150

AMENDED FINAL



KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

**PROVINCIAL STANDARDISED
ASSESSMENT**

GRADE 12

LIFE SCIENCES

JUNE 2026

MARKING GUIDELINES

MARKS: 150

This memorandum consists of 10 pages.

PRINCIPLES RELATED TO MARKING LIFE SCIENCES

1. **If more information than marks allocated is given**
Stop marking when maximum marks is reached and put a wavy line and 'max' in the right-hand margin.
2. **If, for example, three reasons are required and five are given**
Mark the first three irrespective of whether all or some are correct/incorrect.
3. **If whole process is given when only a part of it is required**
Read all and credit the relevant part.
4. **If comparisons are asked for, but descriptions are given**
Accept if the differences/similarities are clear.
5. **If tabulation is required, but paragraphs are given**
Candidates will lose marks for not tabulating.
6. **If diagrams are given with annotations when descriptions are required**
Candidates will lose marks.
7. **If flow charts are given instead of descriptions**
Candidates will lose marks.
8. **If sequence is muddled and links do not make sense**
Where sequence and links are correct, credit. Where sequence and links are incorrect, do not credit. If sequence and links become correct again, resume credit.
9. **Non-recognised abbreviations**
Accept if first defined in answer. If not defined, do not credit the unrecognised abbreviation, but credit the rest of the answer if correct.
10. **Wrong numbering**
If answer fits into the correct sequence of questions, but the wrong number is given, it is acceptable.
11. **If language used changes the intended meaning**
Do not accept.
12. **Spelling errors**
If recognisable, accept the answer, provided it does not mean something else in Life Sciences or if it is out of context.
13. **If common names are given in terminology**
Accept, provided it was accepted at the national memo discussion meeting.
14. **If only the letter is asked for, but only the name is given (and vice versa)**
Do not credit.
15. **If units are not given in measurements**
Candidates will lose marks. Memorandum will allocate marks for units separately.
16. **Be sensitive to the sense of an answer, which may be stated in a different way.**
17. **Caption**
All illustrations (diagrams, graphs, tables, etc.) must have a caption.

SECTION A
QUESTION 1

- 1.1 1.1.1 D✓✓
1.1.2 A✓✓
1.1.3 B✓✓
1.1.4 D✓✓
1.1.5 D✓✓
1.1.6 C✓✓
1.1.7 D✓✓
1.1.8 C✓✓
1.1.9 D✓✓
1.1.10 A✓✓ (10 x 2) **(20)**
- 1.2 1.2.1 Gene✓
1.2.2 Follicle Stimulating Hormone✓/FSH
1.2.3 Allantois✓
1.2.4 Oogenesis✓
1.2.5 Endometrium✓
1.2.6 Corpus luteum✓
1.2.7 Homeostasis✓
1.2.8 Corpus callosum✓
1.2.9 Blastocyst✓/Blastula
2.1.10 Haploid✓ (10 x 2) **(10)**
- 1.3 1.3.1 A only✓✓ (2)
1.3.2 A only✓✓ (2)
1.3.3 A only✓✓ (2)
(6)
- 1.4 1.4.1 (a) Prostate gland✓ (1)
(b) Vas deferens✓ (1)
(c) Seminal vesicle✓ (1)
1.4.2 D✓ - Testis✓ (2)
1.4.3 C✓ - Urethra✓ (2)
(7)
- 1.5 1.5.1 3✓ (1)
1.5.2 (a) B✓ (1)
(b) ii✓ (1)
(c)

- A	}✓✓
- B	
- AB	

 (2)
1.5.3 (a) 50✓% (1)



(b) 25✓%

(1)

(7)

TOTAL SECTION A: [50]

SECTION B

QUESTION 2

2.1 2.1.1 (a) Ribosome✓ (1)

(b) mRNA✓ (1)

(c) Adenine✓/A (1)

2.1.2 Codon✓ (1)

2.1.3 (Strand) 2✓ (1)

2.1.4 - Makes up genes which carry hereditary information✓
- Contains coded information for protein synthesis✓ (2)

(Mark the FIRST TWO only)

2.1.5 Transcription✓*
- The double helix DNA unwinds✓
- The double-stranded DNA unzips✓/weak hydrogen bonds break
- to form two separate strands✓
- One strand is used as a template✓
- to form mRNA✓
- using free RNA nucleotides from the nucleoplasm✓
- The mRNA is complementary to the DNA✓
- mRNA now has the coded message for protein synthesis✓

*1 compulsory + any 5 (6)

(13)

2.2 2.2.1 (a) - Matching tissues✓ for organ transplant
- Identifying relatives✓
- Identifying dead bodies✓
- Used for solving criminal cases✓
- Diagnosing genetic disorders✓ Any (1)

(Mark the FIRST ONE only)

(b) - It is expensive✓
- Human error could occur✓/mistakes during interpretation
- Inaccurate since only a small piece of DNA sample is used✓
- Evidence could be planted✓ to frame someone
- Deliberate swapping of DNA samples✓
- A person's DNA may be in the crime scene before the crime✓

Any (1)

(Mark the FIRST ONE only)

- 2.2.2 (c) Every individual has a unique DNA✓/only identical twins share the same DNA (1)
- 2.3 2.3.1 (a) - Some black bands of the child's DNA profile must match the mother's✓
- and the remaining bands must match with the biological father's✓ (2)
(5)
- 2.3.2 (a) - Graafian follicle✓/ovary (1)
- (b) - Pituitary✓ gland (1)
- 2.3.2 (a) - High LH levels✓
- stimulates ovulation✓
- then the formation of corpus luteum✓
- increasing progesterone level✓ Any (3)
- (b) - Low levels of oestrogen✓
- causes the endometrium not to thicken✓
- reducing the chances of implantation✓
- Therefore no pregnancy Any (3)
(8)
- 2.4 2.4.1 (a) E✓ (1)
- (b) A✓ (1)
- 2.4.2 - Radial muscles contract✓
- Circular muscles relax✓ (2)
- 2.4.3 - Blurred near vision✓
- Eye strain✓
- Holding reading material at a distance✓ Any (2)
- (Mark the FIRST TWO only)**
- 2.4.4 (a) - The lens becomes less convex✓
- Refractive power decreases✓
- resulting in blurred near objects✓/long-sightedness (3)
- (b) - light stimulus will not be converted into an impulse✓
- no impulse will be sent to the cerebrum✓
- resulting in blindness✓ Any (2)
(11)

- 2.5 2.5.1 - Allows for a quick automatic response✓ to a stimulus (2)
- 2.5.2 - to minimise body injuries✓
- 2.5.2 - Heat receptors (on the skin) convert the stimulus into an impulse✓
- which travels via the sensory neuron✓
- through the interneuron in the spinal cord✓
- Interneuron transmits the impulses to the motor neuron✓
- which carries impulses to the hand/arm muscles✓
- The muscles contract to pull away the hand✓ from the heat Any (5)
- (7)

- 2.6 - The pinna traps and directs sound waves into the auditory canal✓
- Causing the tympanic membrane to vibrate✓ as sound waves strike it
- The vibrations are transferred to the ossicles✓
- The ossicles (hammer, anvil, stirrup) amplify and transmit vibrations to the oval window✓
- Vibrations create pressure waves in the endolymph✓/fluid of the cochlea
- The organ of Corti is stimulated✓
- The stimulus is converted into a nerve impulse✓
- The auditory nerve carries the impulse to the cerebrum✓ for interpretation

Any (6)
[50]

QUESTION 3

- 3.1 3.1.1 Karyotype✓ (1)
- 3.1.2 Homologous pair✓ of chromosomes (1)
- 3.1.3 - Same size✓
- Same shape✓
- Same position of centromeres✓
- Genes on the same loci✓
- Carry the same type of genes✓ Any (2)
- (Mark the FIRST TWO only)
- 3.1.4 45✓ (1)
- 3.1.5 (23rd pair) has XY chromosomes✓ (1)
- (Mark the FIRST ONE only)
- 3.1.6 (a) 18✓ (1)
- (b) 23✓ (1)
- 3.1.7 - Non-disjunction occurred in chromosome 18✓
- During anaphase I✓/II
- Resulting in a gamete with an extra chromosome✓/24 chromosomes
- Which fused with a normal gamete✓ (with 23 chromosomes)
- Resulting in a zygote with 47 chromosomes✓ Any (4)
- (12)

3.2 3.2.1 (a) GgLI✓✓ (2)

(b) 9 Green body with Long arms: 3 Green body with short arms:
3 Blue body with Long arms: 1 Blue body with short arms✓✓ (2)



3.2.2 $\frac{3}{16} \times 100$ ✓

= 18,75✓% / 19% (3)
(7)

3.3 3.3.1 X^hX^h ✓ (1)

3.3.2 (a) - Energy levels will be low in affected✓ individuals
- due to low rate of cellular respiration✓
- as a result of reduced oxygen carrying capacity✓ (3)

(b) - Female whales have 2 X-chromosomes✓
- therefore need to inherit 2 recessive alleles✓/ X^hX^h
- while males have one x-chromosome✓
- therefore needing to inherit just one recessive allele✓/ X^hY in order to be affected✓ Any (3)





3.3.3

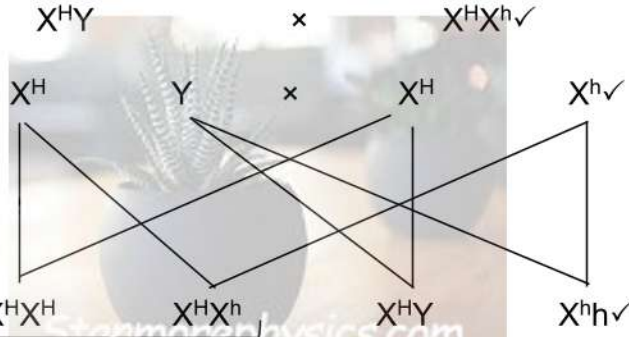
P₁ Phenotype

Male without sideroblastic anaemia

×

Female without sideroblastic anaemia✓

Genotype
Meiosis
G/Gametes



Fertilisation

F₁

Genotype

Phenotype
P₁ and F₁ ✓
Meiosis and fertilisation✓

2 females without sideroblastic anaemia

Male without sideroblastic anaemia

Male with sideroblastic anaemia✓

25%✓*

OR

P₁ Phenotype

Male without sideroblastic anaemia

×

Female without sideroblastic anaemia✓

Genotype

X^HY × X^HX^h✓

Meiosis

Fertilisation

F₁

Female without sideroblastic anaemia	Female without sideroblastic anaemia		
	Gametes	X ^H	X ^h
	X ^H	X ^H X ^H	X ^H X ^h
Male without sideroblastic anaemia	Y	X ^H Y	X ^h Y

Phenotype

P₁ and F₁ ✓
Meiosis and fertilisation✓

2 females without sideroblastic anaemia

Male without sideroblastic anaemia

Male with sideroblastic anaemia✓

(correct gametes)
✓ (correct genotype)

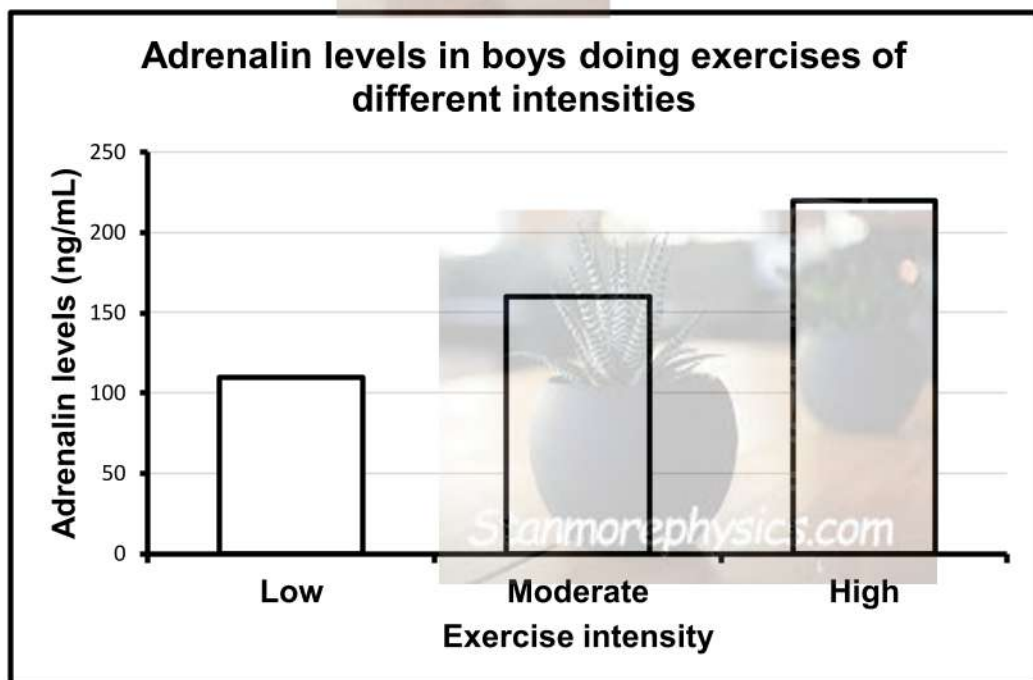
25%✓*

*1 compulsory + Any

(6)
(14)

- 3.4 3.4.1 (a) Adrenalin levels✓ (1)
- (b) Exercise intensity✓ (1)
- 3.4.2 (a) - Ask permission from participants
- Decide on the sample size✓
- Decide on the time, date and venue✓
- Decide on the type and duration of exercise for each group✓
- Decide on the measuring tool✓/method Any (2)
(Mark the FIRST TWO only)
- (b) - Diet✓
- The person measuring adrenalin✓
- Duration of rest between exercises✓
- Blood samples must be collected at the same time of the day
(Mark the FIRST TWO only) Any (2)
- (c) - 10 boys in each group participated✓/ 30 boys participated
- Exercise was done for 5 consecutive days✓
- Average adrenalin level was calculated✓ Any (2)
(Mark the FIRST TWO only)
- 3.4.3 - To obtain a baseline✓
- to verify that the change in adrenalin levels are due to exercise✓ Any (2)
- 3.4.4 The increase in exercise intensity increases adrenalin levels in the body✓✓ (2)

3.4.5





Criteria	Elaboration	Mark
Correct type of graph (T)	Bar graph drawn	1
Caption of graph (C)	Both variables included	1
Axes labels (L)	X- and Y-axis correctly labelled and correct unit for both axes	1
Scale for X- and Y-axes (S)	X-axis - equal width of bars & spaces between bars Y-axis – correct scale	1
Plotting (P)	1 to 2 bars plotted correctly All three bars plotted correctly	1 2

If a histogram or line graph is drawn, marks will be lost for:

- Type of graph and scale

If axes are transposed:

- Can get all marks if labels are also swapped and points correlate with axes
- If labels are not corresponding with axes, then:
 - Marks will be lost for labels and scale
 - Plotting can get credit if the bars are correct for given labels

(6)
(18)
[50]

TOTAL SECTION B: 100
GRAND TOTAL: 150