

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN.
OBJECTIVE KEY FOR INTERMEDIATE 2nd ANNUAL EXAMINATION, 2024

85

Name of Subject: Biology

Group:

Q. Nos	Paper Code 4461	Correct Answer	Paper Code 4463	Correct Answer	Paper Code 4465	Correct Answer	Paper Code 4467	Correct Answer
1	B	70%	B	Darwin	C	ovoviviparous	B	12
2	D	Cambium	D	Consumers	A	Aging	A	Latent Learning
3	B	12	B	Bhakkas	B	100-200 Nucleotides	B	Nervous Coordination
4	A	Latent learning	A	Fossil Fuel	C	03	C	ovoviviparous
5	B	Nervous Coordination	B	70%	D	24 hrs	A	Aging
6	C	ovoviviparous	D	Cambium	B	1:0	B	100-200 Nucleotides
7	A	Aging	B	12	A	Heat sensitivity	C	03
8	B	100-200 nucleotides	A	Latent Learning	C	DNA Probe	D	24 hrs
9	C	03	B	Nervous coordination	B	Darwin	B	1:0
10	D	24 hours	C	ovoviviparous	D	Consumers	A	Heat Sensitivity
11	B	1:0	A	Aging	B	Bhakkas	C	DNA Probe
12	A	Heat Sensitivity	B	100-200 Nucleotides	A	Fossil Fuel	B	Darwin
13	C	DNA Probe	C	03	B	70%	D	Consumers
14	B	Darwin	D	24 hrs	D	Cambium	B	Bhakkas
15	D	Consumers	B	1:0	B	12	A	Fossil Fuel
16	B	Bhakkas	A	Heat Sensitivity	A	Latent Learning	B	70%
17	A	Fossil Fuel	C	DNA Probe	B	Nervous Coordination	D	Cambium
18								
19								
20								
Cross Check	A B C D		A B C D		A B C D		A B C D	
Total	4 7 3 3		4 7 3 3		4 7 3 3		4 7 3 3	

سرٹیفکیٹ بابت متعلقہ سوالیہ پرچہ / مارکنگ Key

ہم نے مضمون Biology پرچہ II گروپ X انٹر میڈیٹ دوسرا سالانہ امتحان 2024 کا سوالیہ پرچہ انشائیہ و معروضی (Subjective & Objective) کو بنظر عین چیک کر لیا ہے یہ پرچہ Syllabus کے عین مطابق Set کیا گیا ہے۔ اس سوالیہ پرچہ میں کسی قسم کی کوئی غلطی نہ ہے۔ ہم نے سوالیہ پرچہ کا اردو اور انگریزی Version بھی چیک کر لیا ہے۔ یہ Version آپس میں مطابقت رکھتے ہیں۔ نیز اس پرچہ کی معروضی (MCQs) Key کی بابت تصدیق کی جاتی ہے کہ اس میں بھی کسی قسم کی کوئی غلطی نہ ہے۔ مزید یہ کہ ہم نے Key بنانے سے متعلق دفتر کی جانب سے تیار کردہ ہدایات وصول کر کے ان کا بغور مطالعہ کر لیا ہے اور ان کی روشنی میں Key بنائی ہے۔ نیز سب ایگزامینرز کیلئے تفصیلی مارکنگ ہدایات / مارکنگ سکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 25/10/2024

S.#	Name	Designation	Institution	Mobile No	Signature
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Re-Checked By: ہم نے درج بالا سوالیہ پرچہ (انشائیہ + معروضی) کی معروضی "Key" اور ہدایات کے حوالہ سے مکمل طور پر تلی کر لی ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

1	TAHIRA ALYI	Assistant Prof	G.C (W) Marhaba Rashid Multan	0302-7497884	
2					

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Paper Code Number: 4461		2024 (2 nd -A) INTERMEDIATE PART-II (12 th Class)		Roll No: _____	
BIOLOGY PAPER-II					
TIME ALLOWED: 20 Minutes		OBJECTIVE		MAXIMUM MARKS: 17	
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
S.#	QUESTIONS	A	B	C	D
1	The incidence of calcium oxalate type stones are:	60%	70%	80%	90%
2	Callus is formed by:	Xylem	Phloem	Epidermis	Cambium
3	Rib cage is composed of _____ pairs of ribs.	14	12	10	08
4	Associations of indifferent stimuli or situations without patent reward are called:	Latent learning	Insight learning	Habituation	Imprinting
5	Production of neurotransmitters is an example of:	Chemical coordination	Nervous coordination	Both A and B	Integration
6	Duckbill platypus is an example of:	Oviparous	Viviparous	Ovoviviparous	Uniparous
7	Negative physiological changes in body are called:	Aging	Apoptosis	Abnormalities	Degeneration
8	The length of OKAZAKI fragments in eukaryotes is:	1000 – 2000 nucleotides	100 – 200 nucleotides	2000 – 3000 nucleotides	200 – 300 nucleotides
9	A codon has nucleotides:	01	02	03	04
10	In human cell, the cell cycle take an average of:	9 hrs	10 hrs	18 hrs	24 hrs
11	The test cross ratio of homozygous trait will be:	1 : 1	1 : 0	1 : 3	3 : 1
12	Taq polymerase is more efficient than DNA polymerase in:	Heat sensitivity	Speed	Less errors	Handling
13	Which of these would you not expect to be biotechnology product:	Vaccine	Modified enzyme	DNA probe	Steroid hormone
14	The book “origin of species” was written by:	Lamarck	Darwin	Malthus	Mendel
15	Which one is not a abiotic component?	Water	Gravity	Energy	Consumers
16	Desert ecosystem include the area of:	Shogran	Bhakkar	Gilgit	Kashmir
17	Which one is not renewable resource?	Fossil fuel	Air	Food	Water

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Paper Code Number: 4463		2024 (2 nd -A) INTERMEDIATE PART-II (12 th Class)		Roll No: _____	
BIOLOGY PAPER-II					
TIME ALLOWED: 20 Minutes		OBJECTIVE		MAXIMUM MARKS: 17	
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
S.#	QUESTIONS	A	B	C	D
1	The book “origin of species” was written by:	Lamark	Darwin	Malthus	Mendel
2	Which one is not a abiotic component?	Water	Gravity	Energy	Consumers
3	Desert ecosystem include the area of:	Shogran	Bhakkar	Gilgit	Kashmir
4	Which one is not renewable resource?	Fossil fuel	Air	Food	Water
5	The incidence of calcium oxalate type stones are:	60%	70%	80%	90%
6	Callus is formed by:	Xylem	Phloem	Epidermis	Cambium
7	Rib cage is composed of _____ pairs of ribs.	14	12	10	08
8	Associations of indifferent stimuli or situations without patent reward are called:	Latent learning	Insight learning	Habituation	Imprinting
9	Production of neurotransmitters is an example of:	Chemical coordination	Nervous coordination	Both A and B	Integration
10	Duckbill platypus is an example of:	Oviparous	Viviparous	Ovoviviparous	Uniparous
11	Negative physiological changes in body are called:	Aging	Apoptosis	Abnormalities	Degeneration
12	The length of OKAZAKI fragments in eukaryotes is:	1000 – 2000 nucleotides	100 – 200 nucleotides	2000 – 3000 nucleotides	200 – 300 nucleotides
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14	In human cell, the cell cycle take an average of:	9 hrs	10 hrs	18 hrs	24 hrs
15	The test cross ratio of homozygous trait will be:	1 : 1	1 : 0	1 : 3	3 : 1
16	Taq polymerase is more efficient than DNA polymerase in:	Heat sensitivity	Speed	Less errors	Handling
17	Which of these would you not expect to be biotechnology product:	Vaccine	Modified enzyme	DNA probe	Steroid hormone

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(MULTAN)

Paper Code Number: 4465		2024 (2 nd -A) INTERMEDIATE PART-II (12 th Class)		Roll No: _____	
BIOLOGY PAPER-II					
TIME ALLOWED: 20 Minutes			OBJECTIVE		MAXIMUM MARKS: 17
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
S.#	QUESTIONS	A	B	C	D
1	Duckbill platypus is an example of:	Oviparous	Viviparous	Ovoviviparous	Uniparous
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3	The length of OKAZAKI fragments in eukaryotes is:	1000 – 2000 nucleotides	100 – 200 nucleotides	2000 – 3000 nucleotides	200 – 300 nucleotides
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9	The book “origin of species” was written by:	Lamark	Darwin	Malthus	Mendel
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11	Desert ecosystem include the area of:	Shogran	Bhakkar	Gilgit	Kashmir
12	Which one is not renewable resource?	Fossil fuel	Air	Food	Water
13	The incidence of calcium oxalate type stones are:	60%	70%	80%	90%
14	Callus is formed by:	Xylem	Phloem	Epidermis	Cambium
15	Rib cage is composed of _____ pairs of ribs.	14	12	10	08
16	Associations of indifferent stimuli or situations without patent reward are called:	Latent learning	Insight learning	Habituation	Imprinting
17	Production of neurotransmitters is an example of:	Chemical coordination	Nervous coordination	Both A and B	Integration

Paper Code Number: 4467		2024 (2nd-A) INTERMEDIATE PART-II (12th Class)		Roll No: _____	
BIOLOGY PAPER-II					
TIME ALLOWED: 20 Minutes			OBJECTIVE		MAXIMUM MARKS: 17
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
S.#	QUESTIONS	A	B	C	D
1	Rib cage is composed of _____ pairs of ribs.	14	12	10	08
2	Associations of indifferent stimuli or situations without patent reward are called:	Latent learning	Insight learning	Habituation	Imprinting
3	Production of neurotransmitters is an example of:	Chemical coordination	Nervous coordination	Both A and B	Integration
4	Duckbill platypus is an example of:	Oviparous	Viviparous	Ovoviviparous	Uniparous
5	Negative physiological changes in body are called:	Aging	Apoptosis	Abnormalities	Degeneration
6	The length of OKAZAKI fragments in eukaryotes is:	1000 – 2000 nucleotides	100 – 200 nucleotides	2000 – 3000 nucleotides	200 – 300 nucleotides
7	A codon has nucleotides:	01	02	03	04
8	In human cell, the cell cycle take an average of:	9 hrs	10 hrs	18 hrs	24 hrs
9	The test cross ratio of homozygous trait will be:	1 : 1	1 : 0	1 : 3	3 : 1
10	Taq polymerase is more efficient than DNA polymerase in:	Heat sensitivity	Speed	Less errors	Handling
11	Which of these would you not expect to be biotechnology product:	Vaccine	Modified enzyme	DNA probe	Steroid hormone
12	The book “origin of species” was written by:	Lamarck	Darwin	Malthus	Mendel
13	Which one is not a abiotic component?	Water	Gravity	Energy	Consumers
14	Desert ecosystem include the area of:	Shogran	Bhakkar	Gilgit	Kashmir
15	Which one is not renewable resource?	Fossil fuel	Air	Food	Water
16	The incidence of calcium oxalate type stones are:	60%	70%	80%	90%
17	Callus is formed by:	Xylem	Phloem	Epidermis	Cambium

2024 (2 nd -A)		Roll No: _____
INTERMEDIATE PART-II (12 th Class)		
BIOLOGY PAPER-II		
TIME ALLOWED: 2.40 Hours	SUBJECTIVE	MAXIMUM MARKS: 68
NOTE: Write same question number and its parts number on answer book, as given in the question paper.		
SECTION-I		
2. Attempt any eight parts.		8 × 2 = 16
(i)	What are osmoconformers? Give their example.	
(ii)	What is counter current multiplier? How this mechanism help to produce concentrated urine?	
(iii)	In what way heat shock proteins protect the plant from high temperature?	
(iv)	Why two lower pair of ribs are known as floating ribs?	
(v)	What do you know about Muscle Antagonism? Give example.	
(vi)	How the vascular cambium involve in increasing the girth of plants?	
(vii)	How does the spermatogenesis take place in Man?	
(viii)	How the pollen tube is related to the evolution of seed?	
(ix)	Differentiate between Prairies and Savanna.	
(x)	What kind of life exists in littoral zone?	
(xi)	Write the four ways for the conservation of energy.	
(xii)	Comprehend the concept of departure from steady state of body.	
3. Attempt any eight parts.		8 × 2 = 16
(i)	Name the receptors that detect pain, smell, taste and light.	
(ii)	Write commercial applications of Ethene.	
(iii)	What is Parkinson's disease? Write its treatment.	
(iv)	In birds and butterfly, sex determination is done by female or egg. Why?	
(v)	Compare P_1 and F_1 generations.	
(vi)	Name non-allelic haemophilia type and also write its cause.	
(vii)	Give two possible ways to get gene of interest.	
(viii)	Name various methods of gene or DNA sequencing, also compare them.	
(ix)	What is probe? Give its one use.	
(x)	Summarize your understanding about crustose lichen stage.	
(xi)	Differentiate between ectoparasite and endoparasite.	
(xii)	Draw food web showing different levels.	
4. Attempt any six parts.		6 × 2 = 12
(i)	Write down the names of four growth phases in plants.	
(ii)	What is open growth? Do you think that animals also show the phenomenon of open growth?	
(iii)	Why Eukaryotic m-RNA is protected after transcription process?	
(iv)	Describe any two causes of mutation.	
(v)	What is transformation? Who discovered this phenomenon?	
(vi)	Why benign tumor is not as injurious as malignant tumor?	
(vii)	Compare metaphase with metaphase – I.	
(viii)	Enlist four factors which affect gene frequency.	
(ix)	How can we protect animals and plants from extinction?	
SECTION-II		
NOTE: Attempt any three questions.		3 × 8 = 24
5.(a)	Write down thermoregulatory adaptations in plants at low and high temperature.	4
(b)	Explain prophase – I of meiosis in detail.	4
6.(a)	Explain the structure, advantages and disadvantages of exoskeleton.	2+1+1
(b)	What is succession? Explain its stages.	4
7.(a)	Define nerve impulse. Explain factors responsible for resting membrane potential.	4
(b)	Describe the evidence of evolution with special reference to the comparative anatomy.	4
8.(a)	Describe female reproductive system.	4
(b)	Explain the process of crossing over.	4
9.(a)	Discuss conditions for growth of plants.	4
(b)	Explain methods of treatment of any four diseases by gene therapy.	4