

INTERMEDIATE PART-II (12th CLASS)**BIOLOGY PAPER-II**

TIME ALLOWED: 3.10 Hours

MAXIMUM MARKS: 83

SUBJECTIVE

NOTE: - Write same question number and its part number on answer book,
as given in the question paper.

SECTION-I

2. **Attempt any Eight parts.** 8 × 2 = 16
- (i) Sketch a single flame cell of Planaria.
 - (ii) Give structural formula of Uric Acid.
 - (iii) What is Pyrexia? Give its cause.
 - (iv) Differentiate between Bone and Cartilage.
 - (v) Give causes of Cramp.
 - (vi) Define Nutation.
 - (vii) Differentiate between Primary Growth and Secondary Growth.
 - (viii) Define Gastrulation.
 - (ix) Define Non-Disjunction. Give its two examples.
 - (x) Define Metastasis.
 - (xi) State Endosymbiont Hypothesis.
 - (xii) What are Vestigial Organs? Give two examples.
3. **Attempt any Eight parts.** 8 × 2 = 16
- (i) What are Galls?
 - (ii) Differentiate between Ganglion and Nerve.
 - (iii) What is Feedback Mechanism?
 - (iv) What is Menopause?
 - (v) What are Test Tube Babies?
 - (vi) Differentiate between Identical and Fraternal Twins.
 - (vii) Write two goals of human Genome Project.
 - (viii) What are Plasmids? Write their role in Genetic Engineering.
 - (ix) Differentiate between Climate and Weather.
 - (x) What is productivity of an Ecosystem?
 - (xi) Write two effects of Acid Rain.
 - (xii) How the trees act as environmental buffers?
4. **Attempt any Six parts.** 6 × 2 = 12
- (i) How much average information is contained in one chromosome?
 - (ii) Which codons are called stop codons and nonsense codons and why?
 - (iii) What is Phenylketonuria?
 - (iv) What is Crossing Over?
 - (v) What is Epistasis?
 - (vi) What is Blue Cone monochromacy?
 - (vii) Define Synecology and Autecology.
 - (viii) What are Producers and Consumers?
 - (ix) Differentiate between Primary Succession and Secondary Succession.

SECTION-II

- NOTE: - Attempt any three questions. 8 × 3 = 24
- 5.(a) Describe the structure of Nephron. 4
 - (b) Discuss Fossil Fuels as Exhaustible Source of Energy. 4
 - 6.(a) Write a note on Nastic Movements in Plants. 4
 - (b) Write a note on Endangered Species. 4
 - 7.(a) Discuss Various Nervous Disorders in human beings (write any two) 4
 - (b) Give components of an ecosystem also discuss interaction between Biotic and Abiotic components. 4
 - 8.(a) Describe Human Female Menstrual Cycle. 4
 - (b) What is Transcription? How it is carried out in cell? 4
 - 9.(a) What is Aging? Give its symptoms and causes. 4
 - (b) Write notes on:- (i) Incomplete Dominance (ii) Codominance. 4

SECTION-III (PRACTICAL)

10. **Attempt any three parts.**
- (A) Draw Urinogenital System of Male frog and label it. 5
 - (B) Draw labelled sketch of Pelvic Girdle of Frog (Dorsal View). 5
 - (C) Write procedure to study Muscle Twitch. 5
 - (D) Draw labelled Sketch of Hen's egg. 5
 - (E) Answer the following questions briefly:- 5
 - (i) Define Blastula. 5
 - (ii) What is Food Chain? 5
 - (iii) Define Skeleton. 5
 - (iv) Define Meiosis. 5
 - (v) What is Cytokinesis? 5

BIOLOGY PAPER-II

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) Small, thick leaves to limit water loss is the characteristic feature of:-
 (A) Mesophytes (B) Xerophytes (C) Hydrophytes (D) All of these
- (2) Malpighian tubules are excretory organs in:-
 (A) Hydra (B) Planaria (C) Cockroach (D) Earthworm
- (3) The groups of animals whose excretory system is structurally associated with nutritive tract are called:-
 (A) Insects (B) Vertebrates (C) Planaria (D) Earthworm
- (4) _____ is Plantigrade.
 (A) Rabbit (B) Monkey (C) Horse (D) Carnivore
- (5) The development of an egg without fertilization is called:-
 (A) Fission (B) Parthenogenesis (C) Budding (D) Haploid Parthenogenesis
- (6) Gonorrhoea is caused by:-
 (A) Viruses (B) Bacteria (C) Fungi (D) Gram +ve Bacteria
- (7) _____ is the symptom of Turner's syndrome.
 (A) Webbed neck (B) Short stature (C) No Ovaries (D) All of these
- (8) Mitosis is divided into:-
 (A) Karyokinesis (B) Interphase (C) Cytokinesis (D) Both A and C
- (9) Hormones secreted by human gut are called:-
 (A) Oestrogen (B) Secretin (C) FSH (D) STH
- (10) Blastomeres are formed during:-
 (A) Gastrulation (B) Growth (C) Cleavage (D) Organogenesis
- (11) Total number of chromosomes in a mosquito are:-
 (A) 80 (B) 06 (C) 32 (D) 08
- (12) ZZ – ZW mechanism of sex determination is present in:-
 (A) Butterflies (B) Birds (C) Moths (D) All of these
- (13) Genes can be cut by:-
 (A) Endonucleases (B) Molecular Vectors (C) Genes of Interest (D) None of these
- (14) Group of interbreeding organisms are:-
 (A) Individual (B) Community (C) Species (D) Biomes
- (15) Followings are biotic components except:-
 (A) Producers (B) Air (C) Consumers (D) Decomposers
- (16) Annual rainfall in temperate forests is:-
 (A) 270 mm (B) 1500 mm (C) 250 mm (D) 750 – 1500 mm
- (17) NO_2 and H_2S cause:-
 (A) Pollution (B) Acid rain (C) Ozone depletion (D) None of these

BIOLOGY PAPER-II

TIME ALLOWED: 20 Minutes

MAXIMUM MARKS: 17

OBJECTIVE

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) Followings are biotic components except:-
 (A) Producers (B) Air (C) Consumers (D) Decomposers
- (2) Annual rainfall in temperate forests is:-
 (A) 270 mm (B) 1500 mm (C) 250 mm (D) 750 – 1500 mm
- (3) NO_2 and H_2S cause:-
 (A) Pollution (B) Acid rain (C) Ozone depletion (D) None of these
- (4) Small, thick leaves to limit water loss is the characteristic feature of:-
 (A) Mesophytes (B) Xerophytes (C) Hydrophytes (D) All of these
- (5) Malpighian tubules are excretory organs in:-
 (A) Hydra (B) Planaria (C) Cockroach (D) Earthworm
- (6) The groups of animals whose excretory system is structurally associated with nutritive tract are called:-
 (A) Insects (B) Vertebrates (C) Planaria (D) Earthworm
- (7) _____ is Plantigrade.
 (A) Rabbit (B) Monkey (C) Horse (D) Carnivore
- (8) The development of an egg without fertilization is called:-
 (A) Fission (B) Parthenogenesis (C) Budding (D) Haploid Parthenogenesis
- (9) Gonorrhoea is caused by:-
 (A) Viruses (B) Bacteria (C) Fungi (D) Gram +ve Bacteria
- (10) _____ is the symptom of Turner's syndrome.
 (A) Webbed neck (B) Short stature (C) No Ovaries (D) All of these
- (11) Mitosis is divided into:-
 (A) Karyokinesis (B) Interphase (C) Cytokinesis (D) Both A and C
- (12) Hormones secreted by human gut are called:-
 (A) Oestrogen (B) Secretin (C) FSH (D) STH
- (13) Blastomeres are formed during:-
 (A) Gastrulation (B) Growth (C) Cleavage (D) Organogenesis
- (14) Total number of chromosomes in a mosquito are:-
 (A) 80 (B) 06 (C) 32 (D) 08
- (15) ZZ – ZW mechanism of sex determination is present in:-
 (A) Butterflies (B) Birds (C) Moths (D) All of these
- (16) Genes can be cut by:-
 (A) Endonucleases (B) Molecular Vectors (C) Genes of Interest (D) None of these
- (17) Group of interbreeding organisms are:-
 (A) Individual (B) Community (C) Species (D) Biomes

BIOLOGY PAPER-II

TIME ALLOWED: 20 Minutes

MAXIMUM MARKS: 17

OBJECTIVE

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) Mitosis is divided into:-
 (A) Karyokinesis (B) Interphase (C) Cytokinesis (D) Both A and C
- (2) Hormones secreted by human gut are called:-
 (A) Oestrogen (B) Secretin (C) FSH (D) STH
- (3) Blastomeres are formed during:-
 (A) Gastrulation (B) Growth (C) Cleavage (D) Organogenesis
- (4) Total number of chromosomes in a mosquito are:-
 (A) 80 (B) 06 (C) 32 (D) 08
- (5) ZZ – ZW mechanism of sex determination is present in:-
 (A) Butterflies (B) Birds (C) Moths (D) All of these
- (6) Genes can be cut by:-
 (A) Endonucleases (B) Molecular Vectors (C) Genes of Interest (D) None of these
- (7) Group of interbreeding organisms are:-
 (A) Individual (B) Community (C) Species (D) Biomes
- (8) Followings are biotic components except:-
 (A) Producers (B) Air (C) Consumers (D) Decomposers
- (9) Annual rainfall in temperate forests is:-
 (A) 270 mm (B) 1500 mm (C) 250 mm (D) 750 – 1500 mm
- (10) NO_2 and H_2S cause:-
 (A) Pollution (B) Acid rain (C) Ozone depletion (D) None of these
- (11) Small, thick leaves to limit water loss is the characteristic feature of:-
 (A) Mesophytes (B) Xerophytes (C) Hydrophytes (D) All of these
- (12) Malpighian tubules are excretory organs in:-
 (A) Hydra (B) Planaria (C) Cockroach (D) Earthworm
- (13) The groups of animals whose excretory system is structurally associated with nutritive tract are called:-
 (A) Insects (B) Vertebrates (C) Planaria (D) Earthworm
- (14) _____ is Plantigrade.
 (A) Rabbit (B) Monkey (C) Horse (D) Carnivore
- (15) The development of an egg without fertilization is called:-
 (A) Fission (B) Parthenogenesis (C) Budding (D) Haploid Parthenogenesis
- (16) Gonorrhoea is caused by:-
 (A) Viruses (B) Bacteria (C) Fungi (D) Gram +ve Bacteria
- (17) _____ is the symptom of Turner's syndrome.
 (A) Webbed neck (B) Short stature (C) No Ovaries (D) All of these

BIOLOGY PAPER-II

TIME ALLOWED: 20 Minutes

MAXIMUM MARKS: 17

OBJECTIVE

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) The development of an egg without fertilization is called:-
 (A) Fission (B) Parthenogenesis (C) Budding (D) Haploid Parthenogenesis
- (2) Gonorrhoea is caused by:-
 (A) Viruses (B) Bacteria (C) Fungi (D) Gram +ve Bacteria
- (3) ____ is the symptom of Turner's syndrome.
 (A) Webbed neck (B) Short stature (C) No Ovaries (D) All of these
- (4) Mitosis is divided into:-
 (A) Karyokinesis (B) Interphase (C) Cytokinesis (D) Both A and C
- (5) Hormones secreted by human gut are called:-
 (A) Oestrogen (B) Secretin (C) FSH (D) STH
- (6) Blastomeres are formed during:-
 (A) Gastrulation (B) Growth (C) Cleavage (D) Organogenesis
- (7) Total number of chromosomes in a mosquito are:-
 (A) 80 (B) 06 (C) 32 (D) 08
- (8) ZZ - ZW mechanism of sex determination is present in:-
 (A) Butterflies (B) Birds (C) Moths (D) All of these
- (9) Genes can be cut by:-
 (A) Endonucleases (B) Molecular Vectors (C) Genes of Interest (D) None of these
- (10) Group of interbreeding organisms are:-
 (A) Individual (B) Community (C) Species (D) Biomes
- (11) Followings are biotic components except:-
 (A) Producers (B) Air (C) Consumers (D) Decomposers
- (12) Annual rainfall in temperate forests is:-
 (A) 270 mm (B) 1500 mm (C) 250 mm (D) 750 - 1500 mm
- (13) NO_2 and H_2S cause:-
 (A) Pollution (B) Acid rain (C) Ozone depletion (D) None of these
- (14) Small, thick leaves to limit water loss is the characteristic feature of:-
 (A) Mesophytes (B) Xerophytes (C) Hydrophytes (D) All of these
- (15) Malpighian tubules are excretory organs in:-
 (A) Hydra (B) Planaria (C) Cockroach (D) Earthworm
- (16) The groups of animals whose excretory system is structurally associated with nutritive tract are called:-
 (A) Insects (B) Vertebrates (C) Planaria (D) Earthworm
- (17) ____ is Plantigrade.
 (A) Rabbit (B) Monkey (C) Horse (D) Carnivore

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION,

MULTAN ✓

OBJECTIVE KEY FOR INTER (PART I / II) Supply Examination, 2016.

Name of Subject Biology.

Session _____

Q. Nos.	Paper Code 0461	Paper Code 0463	Paper Code 0465	Paper Code 0467
1.	B	B	D	B
2.	C	D	B	B
3.	A	B	C	D
4.	B	B	B	D
5.	B	C	D	B
6.	B	A	A	C
7.	D	B	C	B
8.	D	B	B	D
9.	B	B	D	A
10.	C	D	B	C
11.	B	D	B	B
12.	D	B	C	D
13.	A	C	A	B
14.	C	B	B	B
15.	B	D	B	C
16.	D	A	B	A
17.	B	C	D	B
18.				
19.				
20.				

سرٹیفکیٹ بابت تصحیح سوالیہ پرچہ/ مارکنگ Key

ہم نے مضمون Bio پرچہ IL گروپ سکیم New انٹر سالانہ امتحان 2016ء کا سوالیہ پرچہ انشائیہ (Subjective & Objective) کو مدنظر عین چیک کر لیا ہے یہ پرچہ سلیبس کے عین مطابق Set کیا گیا ہے۔ اس سوالیہ پرچہ میں کوئی غلطی نہیں ہے۔ ہم نے سوالیہ پرچہ کا اردو اور انگریزی Version بھی چیک کر لیا ہے یہ Version آپس میں مطابقت رکھتے ہیں اور سلیبس (Syllabus) کے مطابق بھی ہیں۔ نیز اس پرچہ کی Key کی بابت بھی تصدیق کی جاتی ہے کہ یہ بھی درست بنائی گئی ہے۔ اس میں بھی کسی قسم کی کوئی غلطی نہیں 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۔

PREPARED & CHECKED BY

Name Designation Institution Mobile No. Signature.

1- Muhammad Asghar Bashir Assoc. Prof. Govt. College Khenawal

2- JAFAR HUSSAIN SHAH Associate Prof. G.W.H.I. 0300-6342663 J Hussain College Multan

ثانوی و اعلیٰ ثانوی تعلیمی بورڈ، ملتان

صفحہ: 3-11-16 نمبر: Bio

جملہ ہدایات برائے مارکنگ Key کیسکیم (مارکنگ سکیم)

انٹرنیٹ فیچرٹ اسکینڈ سالانہ ضمنی امتحان 2016ء

SECTION - I

Q 2 (i) sketch + Labelling (1+1)

(ii) As in Text Book.

(iii) Definition + Cause (1+1)

(iv) As in Text Book.

v) Two Causes.

(vi) As in Text Book.

(vii) At least one difference.

(viii) As in Text Book.

(ix) As in Text Book.

(x) Definition + Example - (1+1)

(xi) As in Text Book.

(xii) Definition + Example (1+1)

Q. 3 (i) As in Text Book. (ii) At least one difference

(iii) As in Text Book. (iv) As in Text Book.

(v) As in Text Book. (vi) At least one difference.

(vii) As in Text Book. (viii) (1+1)

(ix) one difference (x) As in Text Book.

(xi) As in Text Book. (xii) As in Text Book.

Q 4 (i) As in Text Book. (ii) As in Text Book.

(iii) As in Text Book. (iv) As in Text Book.

(v) As in Text Book. (vi) As in Text Book

(vii) Definition (1+1) (viii) Definition (1+1)

(ix) Definition (1+1)

general instructions

Handwritten signature and date: 3/11/16

Handwritten signature and date: 3/11/16

ثانوی و اعلیٰ ثانوی تعلیمی بورڈ، ملتان

صفحہ: 3-11-16 مضمون: Bio پرچہ: II گروپ:

جزل ہدایات برائے مارکنگ Key کیونیکیم (مارکنگ سکیم)

انٹرنیٹ فرسٹ ایسٹڈ سالانہ ضمنی امتحان 2016ء

SECTION II

Q. 5:

a) Description = (3) + Diagram = (01)

b) As in Text Book.

Q. 6 = a) As in Text Book.

b) As in Text Book.

Q. 7 = a) (2 + 2)

b) b) (1 + 3)

Q. 8 = a) Diagram = 01 Description = 03

b) Definition + Description = (1 + 3)

Q. 9 = a) Definition = 1 Symptom + Causes = 03

b) 2 + 2

SECTION III

Q. 10 = A = sketch = 03 Labelling = 02

B = sketch = 03 Labelling = 02

C = Mark as a whole.

D = sketch = 03 Labelling = 02.

E = One mark for Each Definition (1x5)

J Hussain

JAFAR HUSSAIN SHAH
A.G.W.H.I. College
Multan

0300-6342663

Muhammad Asif
Bishni

Govt. College
Khairpur

0300 4321261

general instructions