

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

TIME ALLOWED: 2.40 Hours

MAXIMUM MARKS: 68

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**
- Enlist the names of paired and unpaired facial bones.
 - Differentiate between open and closed reduction.
 - Differentiate between active flight and passive flight.
 - How protonephridia are different from metanephridia?
 - Define glomerulus and glomerular filtrate.
 - Define endotherms and heterotherms. Give two examples of each group.
 - Define parthenocarp. How it is artificially induced?
 - Which hormones are abundantly found in developing seeds? Also write their role in these seeds.
 - Write two differences between limnetic zone and profundal zone.
 - What is average rainfall and temperature range in temperate deciduous forests and grass lands?
 - Define deforestation and afforestation.
 - Write four harmful effects of acid rain.
- 3. Attempt any eight parts.** **8 × 2 = 16**
- What are the effects of over secretion of thyroxine?
 - What is sympathetic nervous system? Give an example.
 - How do plants respond to the environmental stress?
 - State incomplete dominance with an example.
 - Define monohybrid and dihybrid cross.
 - What is erythroblastosis foetalis? Give its cause.
 - What are plasmids? Give their use.
 - Differentiate between Sanger's method and Maxam Gilbert's method of gene sequencing.
 - Compare ex-vivo with in-vivo gene therapy.
 - Differentiate between food chain and food web.
 - What is commensalism? Give an example.
 - Define succession. Name its types.
- 4. Attempt any six parts.** **6 × 2 = 12**
- What is Teratology? Name any environmental teratogen.
 - Differentiate between Apical and Intercalary meristem.
 - Differentiate between Heterochromatin and Euchromatin.
 - Define Karyotype. Give its importance.
 - Differentiate between Codon and Anti Codon.
 - How Anaphase – I of meiosis does differ from Anaphase of mitosis?
 - What changes occur in dividing cell during Diplotene?
 - Differentiate between Homology and Analogy.
 - What is Hydrothermal Vent? Give one example.

SECTION-II

NOTE: Attempt any three questions.

3 × 8 = 24

- 5.(a) Describe briefly Osmoregulation in marine water animals. 4
- (b) What is Hydrosere? Explain xerosere in detail. 4
- 6.(a) Define autonomic movement in plants, discuss its tactic movement. 4
- (b) Explain the Alfred Hershey and Martha Chase experiment to prove that DNA is the hereditary material. 4
- 7.(a) Compare nervous system of Hydra and Planaria. 4
- (b) Write a note on ozone and ozone depletion. 4
- 8.(a) Discuss the human female reproductive cycle. 4
- (b) Discuss Rh blood group system. 4
- 9.(a) What is open growth? Also explain different phases of growth in plants. 4
- (b) Write a brief note on endosymbiont hypothesis. 4

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 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. 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) Bats and Humming birds are:
 (A) Endotherms (B) Heterotherms (C) Ectotherms (D) Poikilotherms
- (2) Incidence of calcium oxalate stone is:
 (A) 10% (B) 25% (C) 15% (D) 70%
- (3) Bone dissolving cells are:
 (A) Osteoblast (B) Osteocyte (C) Osteoclast (D) Stem cell
- (4) The number of Cervical vertebrae are:
 (A) 7 (B) 12 (C) 33 (D) 22
- (5) The smaller number of α – cell in pancreas secretes:
 (A) Insulin (B) Glycogen (C) ADH (D) Ethene
- (6) The study of Aging is called:
 (A) Teratology (B) Gerontology (C) Cell Biology (D) Paleontology
- (7) Microtubules are composed of protein:
 (A) Tubulin (B) Actin (C) Myosin (D) Insulin
- (8) The total area of the world under cultivation is:
 (A) 30% (B) 21% (C) 11% (D) 1%
- (9) Which one is not desert?
 (A) Thal (B) Thar (C) Sahara (D) Taiga
- (10) Pick the Biotic component from the followings:
 (A) Soil (B) Water (C) Air (D) Animals
- (11) How many types of Finches were collected by Darwin on Galapagos island?
 (A) 11 (B) 13 (C) 23 (D) 33
- (12) Meristem culture produces plants that are:
 (A) Pathogen free (B) Virus free (C) Bacteria free (D) Fungi free
- (13) MN blood group is an example:
 (A) Complete dominance (B) Co-dominance (C) In-complete dominance (D) Over-dominance
- (14) Which one of the following is Non-sense codon?
 (A) UGA (B) UGG (C) AUG (D) AUC
- (15) Blastomeres are formed during:
 (A) Morulla (B) Blastula (C) Cleavage (D) Zone of Junction
- (16) Synapsis takes place during:
 (A) Leptotene (B) Zygotene (C) Pachytene (D) Diplotene
- (17) Which one is a Haploid cell?
 (A) Primary oocyte (B) Secondary oocyte (C) Oogonia (D) Zygote

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BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN.
OBJECTIVE KEY FOR INTERMEDEAT SPECIAL PART-II EXAMINATION, 2020
 Name of Subject: Biology Session: Special Exam-2020

Q. Nos.	Paper Code 4461	Paper Code 4463	Paper Code 4465	Paper Code 4467
1	B	D	A	A
2	D	B	C	F.C
3	C	B	D	B
4	A	B	D	A
5	F.C	A	B	C
6	B	C	B	D
7	A	B	B	D
8	C	B	A	B
9	D	B	C	B
10	D	D	B	B
11	B	C	B	A
12	B	A	B	C
13	B	F.C	D	B
14	A	B	C	B
15	C	A	A	B
16	B	C	F.C	D
17	B	D	B	C
18	/	/	/	/
19	/	/	/	/
20	/	/	/	/

Note: F.C means full credit.

مرئیٹیکٹ بابت تصحیح سوالیہ پرچہ امارنگ Key

ہم نے مضمون Biology پرچہ II گروپ سیکیم انٹرمیڈیٹ انجیل امتحان 2020 کا سوالیہ پرچہ انشائیہ و معروضی (Subjective & Objective) کو بنظر عمیق 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 اور Syllabus کی مطابق بھی ہیں۔ نیز اس پرچہ کی معروضی (MCQs) Key کی بابت بھی تصدیق کی جاتی ہے کہ اس میں بھی کسی قسم کی کوئی غلطی نہ ہے۔ MCQs کی "Key" کو دوبارہ بھی بغور چیک کر لیا گیا 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 ہدایات / مارکنگ سکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

S.#	Name	Designation	Institution	Mobile No	Signature
1	Tanvir Aslam	Assistant Prof.	Govt. College Civil Lines, Multan	03017443020	
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Re-Checked By ہم نے درج بالا سوالیہ پرچہ (انشائیہ + معروضی) معروضی "Key" اور ہدایات کے حوالہ سے مکمل طور پر تلی کر لی ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

S.#	Name	Designation	Institution	Mobile No	Signature
1	M. Aslam Farooq	Asso-Prof	Govt. Emerson College, Multan	0303762247	
2					
3					