

BIOLOGY PAPER-I (NEW SCHEME) GROUP-I

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

MAXIMUM MARKS: 68

**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) Draw general formula for an Amino acid.
 - (ii) How enzyme concentration affects the rate of enzyme action?
 - (iii) What is active site of enzyme? How it works?
 - (iv) At high level of substrate concentration, enzyme reaction is not increased. Why?
 - (v) What role fungi and algae play in lichen?
 - (vi) Define dikaryotic phase with example.
 - (vii) Give two common characters of Annetids and Arthropods.
 - (viii) What are harmful effects of insects?
 - (ix) Give two uses of sharks.
 - (x) What is swim bladder? Give its function.
 - (xi) Define accessory pigments. What is their role?
 - (xii) What is compensation point? When it occurs?
3. **Attempt any eight parts.** **8 × 2 = 16**
- (i) Define Phyletic Lineage.
 - (ii) How deductive reasoning is different from inductive reasoning?
 - (iii) Differentiate between chromoplast and leucoplast.
 - (iv) What are microtubules? Write their function.
 - (v) Write something about giant amoeba.
 - (vi) How algae are different from plants?
 - (vii) What are Dinoflagellates? Give their significance.
 - (viii) Write importance of Algae.
 - (ix) What are antheridiophores and archegoniophores?
 - (x) Define Homospory and Heterospory.
 - (xi) Write role of lymphatic system in defense of body.
 - (xii) What is passive immunity?
4. **Attempt any six parts.** **6 × 2 = 12**
- (i) What are capsid and capsomere?
 - (ii) Differentiate between Lophotrichous and Amphitrichous bacteria.
 - (iii) Write down function of Villi.
 - (iv) Give composition of saliva.
 - (v) What is heart burn?
 - (vi) Define breathing.
 - (vii) Give symptoms and causes of tuberculosis.
 - (viii) How pH affects the capacity of haemoglobin to combine with Oxygen?
 - (ix) What is the role of diaphragm in breathing?

SECTION-II

- NOTE: - Attempt any three questions.** **3 × 8 = 24**
- 5.(a) Discuss Biological method. 4
- (b) What is Cohesion tension theory? 4
- 6.(a) Write a note on Acylglycerol. 4
- (b) Give an account of animal diseases caused by Fungi. 4
- 7.(a) Write various methods to control bacteria. 4
- (b) Give land adaptations of bryophytes. 4
- 8.(a) Discuss the lytic cycle of the Bacteriophage. 4
- (b) What is anaerobic respiration? Discuss its types. 4
- 9.(a) Describe structure and functions of cell membrane. 4
- (b) Explain causes and remedy of food poisoning and obesity. 4

BIOLOGY PAPER-I (NEW SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

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Q.No.1

- (1) The reasoning from general to specific is:
 (A) Inductive (B) Deductive (C) Scientific (D) Theoretical
- (2) Our blood normally contains Glucose:
 (A) 0.6 % (B) 0.8 % (C) 0.06 % (D) 0.08 %
- (3) Lock and key model was proposed by:
 (A) Koshland (B) Emil Fischer (C) Flemming (D) Wilkins
- (4) The fluid which surrounds thylakoids is:
 (A) Matrix (B) Stroma (C) Cytosol (D) Nucleoplasm
- (5) The capsomeres present in the capsid of Adeno-virus are:
 (A) 152 (B) 162 (C) 252 (D) 352
- (6) Rapid phase of growth of Bacteria is:
 (A) Lag phase (B) Log phase (C) Stationary phase (D) Death/decline phase
- (7) Most green algae possess cell walls with:
 (A) Cellulose (B) Chitin (C) Silica (D) Pectin
- (8) Ustilago species are most common:
 (A) Rust fungi (B) Smut fungi (C) Mold (D) Yeast
- (9) The simplest of all the Bryophytes are:
 (A) Mosses (B) Liverworts (C) Hornworts (D) Club Mosses
- (10) Dolphin is:
 (A) Fish (B) Bird (C) Mammal (D) Amphibian
- (11) Coral reefs are mostly formed of:
 (A) Calcium carbonate (B) Silica (C) Chitin (D) Lignin
- (12) Chlorophyll a is:
 (A) Yellow green (B) Blue green (C) Orange green (D) Yellow green dark
- (13) The number of chloroplasts in each Mesophyll cell is about:
 (A) 10–50 (B) 20–100 (C) 30–80 (D) 100–200
- (14) Fresh saliva has pH:
 (A) 4 (B) 6 (C) 8 (D) 7.3
- (15) The heart of Fish is:
 (A) Single circuit (B) Double circuit (C) Triple circuit (D) Multi circuit
- (16) About _____ of total transpiration takes place through cuticular transpiration.
 (A) 1–2 % (B) 5–7 % (C) 90 % (D) 2–5 %
- (17) One complete heart beat lasts for:
 (A) 0.8 seconds (B) 0.4 seconds (C) 0.15 seconds (D) 0.2 seconds

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INTERMEDIATE PART-I (11th CLASS)**BIOLOGY PAPER-I (NEW SCHEME) GROUP-II**

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

MAXIMUM MARKS: 68

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**
- What is the function of mRNA?
 - Define Coenzyme.
 - Differentiate between Holoenzyme and Apoenzyme.
 - What is Activator?
 - What do you know about nuclear mitosis?
 - Differentiate between endomycorrhizae and ectomycorrhizae.
 - What is Mantle?
 - What are spicules?
 - Describe disinfestation of Taenia.
 - What are tunicates?
 - What is source of Oxygen during photosynthesis?
 - What is the use of Spectrophotometer?
3. **Attempt any eight parts.** **8 × 2 = 16**
- What is Bioremediation?
 - What is Biological control?
 - What are Peroxisomes?
 - Define Storage diseases.
 - What are actinopods?
 - How slime molds are different from fungi?
 - Describe evolutionary significance of euglenoids.
 - What are red tides?
 - How male cone of pinus differs from female cone?
 - Define Ovule.
 - Briefly describe pulmonary circulation.
 - What is honey dew?
4. **Attempt any six parts.** **6 × 2 = 12**
- What are the symptoms of AIDS?
 - What is plasmid? Give its importance.
 - What are detritivores animals?
 - Define the term peristalsis.
 - What is gastrin? Give its function.
 - How much Carbon dioxide is present in venous and arterial blood?
 - What is pulmonary tuberculosis? Write down its cause.
 - What is Myoglobin? How does it differ from haemoglobin?
 - What is the effect of Carbon dioxide on the transport of Oxygen in blood?

SECTION-II

- NOTE: - Attempt any three questions.** **3 × 8 = 24**
- 5.(a) Define the following branches of Biology. 4
- (i) Molecular Biology (ii) Microbiology (iii) Parasitology (iv) Biotechnology
- (b) Describe the mechanism of opening and closing of stomata. 4
- 6.(a) Describe the primary and secondary structure of protein. 4
- (b) Describe characteristics of Basidiomycota. 4
- 7.(a) Give economic importance of Cyanobacteria. 4
- (b) Describe life cycle of Adiantum. 4
- 8.(a) Write a detailed note on "AIDS". Draw life cycle of HIV. 4
- (b) Explain Krebs's cycle in detail. Draw flow sheet diagram of its reactions. 4
- 9.(a) What is Cytoskeleton? Give its functions. 4
- (b) Describe events that occur during the process of swallowing. 4

BIOLOGY PAPER-I (NEW SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes

OBJECTIVE

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Q.No.1

- (1) In deductive reasoning we move from:
 - (A) General to specific
 - (B) Specific to general
 - (C) General to general
 - (D) Specific to specific
- (2) Total weight of water in bacterial cell is:
 - (A) 10%
 - (B) 30%
 - (C) 50%
 - (D) 70%
- (3) Irreversible inhibitors form which bonds with active site?
 - (A) Hydrogen bonds
 - (B) Covalent bonds
 - (C) Ionic bonds
 - (D) Hydrophobic bonds
- (4) Cell membrane is chemically composed of proteins:
 - (A) 10 – 20 %
 - (B) 20 – 30 %
 - (C) 40 – 50 %
 - (D) 60 – 80 %
- (5) Influenza viruses are:
 - (A) RNA enveloped
 - (B) RNA non-enveloped
 - (C) DNA enveloped
 - (D) DNA non-enveloped
- (6) Pilli are primarily involved in:
 - (A) Movement
 - (B) Conjugation
 - (C) Nutrition
 - (D) Excretion
- (7) Phycoerythrin is found in:
 - (A) Green algae
 - (B) Red algae
 - (C) Brown algae
 - (D) Blue green algae
- (8) Rhizopus belongs to class:
 - (A) Deuteromycetes
 - (B) Ascomycetes
 - (C) Basidiomycetes
 - (D) Zygomycetes
- (9) Which of the following were the first plants that formed true leaves and roots?
 - (A) Psilopsids
 - (B) Lycopods
 - (C) Megaphylls
 - (D) Ferns
- (10) Pseudocoel is found in:
 - (A) Ascaris
 - (B) Neries
 - (C) Lumbricus
 - (D) Pheretima
- (11) Example of tunicate is:
 - (A) Amphioxus
 - (B) Molgula
 - (C) Amphibia
 - (D) Reptilia
- (12) Chlorophyll 'a' of photosystem I absorbs maximum light of:
 - (A) 670 nm
 - (B) 680 nm
 - (C) 690 nm
 - (D) 700 nm
- (13) Which is stimulus for cyclic phosphorylation?
 - (A) Low CO_2
 - (B) Low O_2
 - (C) Low ATP
 - (D) Low NADPH
- (14) Which of the following has tube type digestive system?
 - (A) Cockroach
 - (B) Amoeba
 - (C) Hydra
 - (D) Planaria
- (15) Respiratory distress syndrome is common in:
 - (A) All new borns
 - (B) Premature infants
 - (C) Adults
 - (D) Old age people
- (16) Closely associated with root pressure is a phenomenon:
 - (A) Transpiration
 - (B) Exudation
 - (C) Evaporation
 - (D) Humidity
- (17) Antiserum is a serum containing:
 - (A) Antibodies
 - (B) Antibiotics
 - (C) Antigen
 - (D) Anticancer chemicals

BIOLOGY PAPER-I (NEW SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes

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- (6) Total weight of water in bacterial cell is:
(A) 10% (B) 30% (C) 50% (D) 70%
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(A) Hydrogen bonds (B) Covalent bonds (C) Ionic bonds (D) Hydrophobic bonds
- (8) Cell membrane is chemically composed of proteins:
(A) 10 – 20 % (B) 20 – 30 % (C) 40 – 50 % (D) 60 – 80 %
- (9) Influenza viruses are:
(A) RNA enveloped (B) RNA non-enveloped (C) DNA enveloped (D) DNA non-enveloped
- (10) Pilli are primarily involved in:
(A) Movement (B) Conjugation (C) Nutrition (D) Excretion
- (11) Phycoerythrin is found in:
(A) Green algae (B) Red algae (C) Brown algae (D) Blue green algae
- (12) Rhizopus belongs to class:
(A) Deuteromycetes (B) Ascomycetes (C) Basidiomycetes (D) Zygomycetes
- (13) Which of the following were the first plants that formed true leaves and roots?
(A) Psilopsids (B) Lycopods (C) Megaphylls (D) Ferns
- (14) Pseudocoel is found in:
(A) Ascaris (B) Neries (C) Lumbricus (D) Pheretima
- (15) Example of tunicate is:
(A) Amphioxus (B) Molgula (C) Amphibia (D) Reptilia
- (16) Chlorophyll 'a' of photosystem I absorbs maximum light of:
(A) 670 nm (B) 680 nm (C) 690 nm (D) 700 nm
- (17) Which is stimulus for cyclic phosphorylation?
(A) Low CO_2 (B) Low O_2 (C) Low ATP (D) Low NADPH

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- (11) Respiratory distress syndrome is common in:
(A) All new borns (B) Premature infants (C) Adults (D) Old age people
- (12) Closely associated with root pressure is a phenomenon:
(A) Transpiration (B) Exudation (C) Evaporation (D) Humidity
- (13) Antiserum is a serum containing:
(A) Antibodies (B) Antibiotics (C) Antigen (D) Anticancer chemicals
- (14) In deductive reasoning we move from:
(A) General to specific (B) Specific to general (C) General to general (D) Specific to specific
- (15) Total weight of water in bacterial cell is:
(A) 10% (B) 30% (C) 50% (D) 70%
- (16) Irreversible inhibitors form which bonds with active site?
(A) Hydrogen bonds (B) Covalent bonds (C) Ionic bonds (D) Hydrophobic bonds
- (17) Cell membrane is chemically composed of proteins:
(A) 10 – 20 % (B) 20 – 30 % (C) 40 – 50 % (D) 60 – 80 %

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN
OBJECTIVE KEY FOR INTERMEDIATE ANNUAL EXAMINATION, 2019

Name of Subject: Biology (New Scheme)

Session: (New Scheme)

Group: 1st

Group: 2nd

Q. Nos	Paper Code 2461	Paper Code 2463	Paper Code 2465	Paper Code 2467
1	B	B	A	B
2	D	C	B	C
3	B	A	B	B
4	B	B	C	A
5	C	B	A	B
6	B	C	B	B
7	A	A	B	C
8	B	B	C	A
9	B	A	A	B
10	C	B	B	B
11	A	D	A	C
12	B	B	B	A
13	B	B	D	B
14	C	C	B	A
15	A	B	B	B
16	B	A	C	D
17	A	B	B	B
18				
19				
20				

Q. Nos	Paper Code 2462	Paper Code 2464	Paper Code 2466	Paper Code 2468
1	A	A	B	A
2	D	B	D	B
3	B	B	B	B
4	D	A	A	D
5	A	A	B	B
6	B	D	D	A
7	B	B	C	B
8	D	D	A	D
9	B	A	B	C
10	A	B	B	A
11	B	B	A	B
12	D	D	A	B
13	C	B	D	A
14	A	A	B	A
15	B	B	D	D
16	B	D	A	B
17	A	C	B	D
18				
19				
20				

سرٹیفکیٹ بابت صحیح سوالیہ پرچہ مارکنگ Key

ہم نے مضمون Biology پرچہ 1 گروپ 1 & 2 سیکم New انٹر سالانہ امتحان 2019 کا سوالیہ پرچہ انشائیہ و معروضی (Subjective & Objective) کو بنظر معیت 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 ایگزیمینرز کیلئے تفصیلی مارکنگ ہدایات / مارکنگ سکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 03.06.2019

S.#	Name	Designation	Institution	Mobile No	Signature
1	M. Raiz	AP Bio.	Govt. Multan College Multan	0300 735674	
2	Tanvir Aslam	A.P Bio.	Govt. College Civil Lines Multan	03017443020	
3					
4					
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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 چیک کر لیا ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

1	JAFAR HUSSAIN SHAH	Associate Prof	Govt. W.H.I. College	0300 634266	
2	M. Aslam Farooq	Asso-Prof	Govt. Emerson College Multan	0333762244	
3					

تاریخ

2019 (A)

Roll No: _____

INTERMEDIATE PART-I (11th CLASS)**BIOLOGY PAPER-I (OLD SCHEME) GROUP-I**

TIME ALLOWED: 3.10 Hours

SUBJECTIVE

MAXIMUM MARKS: 83

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) What is Hydroponic culture?
- (ii) Define Phyletic Lineage.
- (iii) Give basis of classification proposed by Robert Whittaker.
- (iv) Briefly describe Induce Fit Model.
- (v) What are inhibitors? Give its examples.
- (vi) Give two role of co-factor.
- (vii) What is Mantle?
- (viii) Give two characters of class Hirudinea.
- (ix) What is metamorphosis?
- (x) What are Parazoa?
- (xi) Give two uses of yeasts.
- (xii) Define rust.

3. Attempt any eight parts.**8 × 2 = 16**

- (i) What is Hormogonia?
- (ii) Write two characteristics of dinoflagellates.
- (iii) Write down the importance of choanoflagellates.
- (iv) What are foraminiferans?
- (v) What is Giant Amoeba?
- (vi) What are arthropytes?
- (vii) Define Protonema.
- (viii) What is Van Niel's hypothesis?
- (ix) Define Photosystem.
- (x) How Sundew is modified for insectivorous activity?
- (xi) What is Peristalsis?
- (xii) What is Constipation?

4. Attempt any six parts.**6 × 2 = 12**

- (i) Write two functions of smooth endoplasmic reticulum.
- (ii) What are leucoplasts?
- (iii) What are saturated and unsaturated fatty acids?
- (iv) What are blue babies?
- (v) Write two functions of Basophils.
- (vi) What is Emphysema?
- (vii) Write two properties of respiratory surfaces in animals.
- (viii) What are products of Photorespiration?
- (ix) Oxygen can be obtained more easily from air than from water. Write two reasons.

P.T.O.

(2)

SECTION-II

NOTE: - Attempt any three questions of the following:

3 × 8 = 24

- 5.(a) What is the role of study of Biology in conservation of environment? 4
(b) Write a note on immunity and its types. 4
- 6.(a) Describe different forms of RNA. 4
(b) Give economic losses due to fungi. 4
- 7.(a) Differentiate between Prokaryotic and Eukaryotic cell. 4
(b) Describe process of absorption of food in small intestine of man. 4
- 8.(a) Write a note on AIDS. 4
(b) Sketch and label light reaction. (Non-cyclic electron flow) No description is required. 4
- 9.(a) Explain different shapes of Bacteria. 4
(b) Write a note on evolution of Megaphyll. 4

SECTION-III (PRACTICAL)

10. Attempt any three parts.

3 × 5 = 15

- (A).(i) Write iodine test for confirmation of starch. 3
(ii) What are oligosaccharides? 2
- (B).(i) Explain the following technical terms with reference to "Rosa indica": 3
(a) Calyx (b) Corolla (c) Androecium
(ii) What are zygomorphic flowers? 2
- (C) Sketch and label digestive system of frog. 5
- (D).(i) Write material and procedure for measuring rate of transpiration by photometer method. 3
(ii) Define transpiration. 2
- (E) Give one character of each to identify the following: 5
(i) T.S. of Dicot stem (ii) Male cone of pinus (iii) T.S. of Bifacial leaf
(iv) Volvox (v) Fern prothallus

BIOLOGY PAPER-I (OLD SCHEME) GROUP-I

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. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles 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 questions on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) A structure within a cell that performs a specific function:
(A) Cell (B) Tissue (C) Organelle (D) Organ
- (2) In DNA, the pentose sugar is:
(A) Ribose (B) Glucose (C) Deoxyribose (D) Lactose
- (3) In mammalian cell amount of protein is:
(A) 16% (B) 18% (C) 20% (D) 22%
- (4) An activated enzyme consisting of polypeptide chain and cofactor:
(A) Apoenzyme (B) Holoenzyme (C) Activator (D) Prosthetic group
- (5) Euglena belongs to kingdom:
(A) Monera (B) Fungi (C) Protista (D) Plantae
- (6) When arrangement of bacilli occurs in pairs, is known as:
(A) Bacillus (B) Diplobacillus (C) Coccobacillus (D) Streptobacillus
- (7) The shell of actinopods is made up of:
(A) Calcium (B) Phosphorous (C) Silica (D) Carbonates
- (8) Rhizopus belongs to:
(A) Zygomycota (B) Ascomycota (C) Basidiomycota (D) Deuteromycota
- (9) Psilopsida is commonly called:
(A) Club mosses (B) Horse tails (C) Ferns (D) Whisk ferns
- (10) Kangaroo belongs to sub-class:
(A) Aves (B) Prototheria (C) Metatheria (D) Eutheria
- (11) A radula, tongue like structure found in:
(A) Insects (B) Fishers (C) Amphibians (D) Molluses
- (12) In citric acid cycle, acetyl-CoA reacts with oxaloacetate to form:
(A) ATP (B) NADH (C) Citrate (D) Pyruvate
- (13) The uptake of diffusible food molecules from digestive material into the cell is called:
(A) Ingestion (B) Digestion (C) Absorption (D) Assimilation
- (14) Respiratory pigment present in muscle is called:
(A) Globin (B) Myoglobin (C) Haemoglobin (D) Haemocyanin
- (15) The exchange of respiratory gases between organism and its environment is called:
(A) Aerobic respiration (B) Anaerobic respiration (C) Cellular respiration (D) External respiration
- (16) Which one is acting as source according to pressure-flow theory?
(A) Leaf (B) Root (C) Stem (D) Fruits
- (17) The shrinkage of protoplast due to exosmosis of water is called:
(A) Diffusion (B) Plasmolysis (C) Deplasmolysis (D) Endocytosis

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OBJECTIVE KEY FOR INTERMEDEAT ANNUAL/SUPPLY EXAMINATION, 2019'

Name of Subject: Biology Session: _____

Q.Nos	Paper Code	Paper Code	Paper Code	Paper Code
	6461			
1	C			
2	C			
3	B			
4	B			
5	C			
6	B			
7	C			
8	A			
9	D	(According to PTBB Page 131 3rd edition 2015)		
10	C			
11	D			
12	C			
13	C			
14	B			
15	D			
16	A			
17	B			
18				
19				
20				

سرٹیفکیٹ بابت صحیح سوالیہ پرچہ امارکنگ Key

ہم نے مضمون بیالوجی پرچہ I گروپ old سکیم 2019 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: 03-06-19

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3	M. Aslam Farooqi	Assu-prof	Govt; Emerson College multan	03337622407	(Signature)