

Programme: BScTE (1-Yr) 2nd Sem, BScTE (2-Yr) 4th Sem

Date: 23 August, 2019 (Friday, Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4203

Course Title: Psychology of Teaching and Learning

Summer Semester (2018-2019)

Time : 90 minutes

Full Marks : 50

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) Identify six main tasks of educational psychology in teaching and learning. 6.33
b) Discuss the following four aspects which are linked with scope of educational psychology: 12.00
(i) The learner (pupil).
(ii) The learning processes.
(iii) The learning situation
(iv) The learning experiences.
2. a) Explain Thorndike's experiment and thereafter, draw his theory which is connected with teaching and learning. 10.33
b) State two reasons of using the following theories in education sector with its education implications: 6.00
(i) Skinner.
(ii) Pavlov.
3. a. Explain four developmental stages of Piaget 's theory and thereafter, show how learning occurs during each stage. 12.33
b. Write two limitations (with examples) of using Thorndike's theory in teaching and learning in TVET sector. 4.00
4. Draw a comparison table that represents different aspects (features) among the following theories of learning: 16.33
(i) Cognitivism.
(ii) Constructivism.

Programme: BScEngg in MCE, 2nd Semester

Date: 27 August, 2019 (Tuesday, afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4217

Course Title: Islamic Philosophy and Professional Ethics

Summer Semester 2018- 2019

Time : 90 Minutes

Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) Define the term 'Professionalism' both from conventional and Islamic point of view. 12
b) Discuss the history and developments of Professionalism. 13
2. a) What are the Issues of Professionalism? 12
b) Discuss how to accomplish professional Development in the current age? 13
3. a) Drive the concepts and definitions of Philosophy? 12
b) Discuss the major philosophies of Western school of Thought. 13
4. a) Narrate the contribution of Imam Al-Ghazali in Islam. 12
b) Evaluate the ideas and formulas given by Imam Al-Ghazali regarding integrity and Values. 13

Programme: Bsc Engg. (EEE), 2nd Semester

Date: 27 August, 2019 (Tuesday, Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4225

Course Title: Professional Ethics and Legal Issues

Summer Semester (2018-2019)

Time : 90 minutes

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).

Figures in the right margin indicate marks of the questions.

- 1. a) Discuss the implications of Engineering Ethics. 15
- b) Explain the cautious optimism about technology which should be adopted by the engineering community. 10

- 2. a) Briefly analyze the engineering and global aspects of Bhopal tragedy. 15
- b) Discuss the notion of safe exit, using evacuation plans for communities near nuclear power plants or chemical process plants. 10

- 3. Milton Friedman argues that the sole responsibility of managers is to stockholders, to maximize profits within the bounds of law and without committing fraud. An alternative view is stakeholders' theory: managers have responsibilities to all the individuals and organizations that make contract with a corporation or otherwise are directly affected by them. Present and defend your view as to which of these positions is the more defensible morally. 25

- 4. Write short notes on the following:

 - a) Micro and macro issues. 5
 - b) Risk and benefit analysis. 10
 - c) Improved safety. 10

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ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No.: Hum 4229

Course Title: Engineering Management

Summer Semester (2018-2019)

Time: 90 Minutes

Full Marks: 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) What is meant by term scientific management? Explain the reason behind the creation of scientific management. 8
- b) What is soldering? State three causes of soldering in traditional organization. 8
- c) In 1927 Elton Mayo and F. Roethlisberger performed a series of studies in Hawthorne plant of Western Electric Company near Chicago in USA. Discuss Hawthorne study and its implication in engineering management. 9
2. a) What is planning? 5
- b) Below is a survey of complaints from students of a residential university that are negatively affected about their academic performance. Draw a pareto chart and try to find the vital few and useful many. 12

Cause	No. of Complains
Post-traumatic stress	20
Poor nutrition	50
Inadequate teachers' preparation to teaching	70
Poor approach to learning	120
Irregularity of the students to the class	90
Language barrier	60
Lack of interest among students	40
Lack of enough prerequisites for the program	30

- c) with a high increase in the IUT student population in recent academic years, Pedagogy is being compromised. Therefore, TVE department is going to introduce Online classes. Assuming you are the head of TVE department, use the Edward de Bono's Six Hats to involve your colleagues in a meeting to brainstorm on the implication of the Online learning application. 8

3. a) Use Ishikawa diagram to illustrate the possible causes of poor academic performance among university students. 8
- b) What are the steps involved in constructing an effective "cause and effect" diagram. 8
- c) Briefly explain the following terminologies as used in decision making: 3x3
- I. Consensus minus one method
 - II. Autocratic decision method
 - III. Expert decision method.
4. a) Briefly write a short note on Vrooms Expectancy Theory of Motivation. Discuss the three variables as used in Vrooms Expectancy Theory. 10
- b) Write short notes on the following with examples: 5x3
- 1) Negative Reinforcement
 - 2) Punishment Reinforcement
 - 3) Extinction of a Reinforcement.

Programme: B.Sc.TE 2 Yr(4th Sem)/ 1 Yr (2nd sem)

Date: 29 August, 2019 (Thursday, morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4229

Course Title: Instructional Technology & Communication Skill

Summer Semester (2018-2019)

Time: 90 Minutes

Full Marks : 75

There are 04 (four) questions. Answer any 3(three).
Figures in the right margin indicate marks of the questions.

1. (a) What is instructional technology? How does it help the instructors and learners in the task of instruction and learning? 10
(b) Describe in detail the scope of educational technology. 15
2. (a) "The audio-visual aids provide motivation to the learners and facilitate learning"- Explain. 5
(b) State the advantages and disadvantages of the following teaching aids: 12
i. OHP
ii. White Board
iii. Flipchart
(c) Discuss briefly the different problems of using teaching aids. 8
3. (a) Define communication in teaching-learning (T-L) process. Discuss its process in details. 10
(b) Discuss, in brief, the various types of communication carried out in different situations. 10
(c) State briefly the internal and external barriers of communication. 5
4. (a) Define the meaning and concept of ICT. List the name of traditional and modern ICTs in terms of teaching and learning. 10
(b) Discuss the uses and advantages of ICT in improving the functioning of the institutions and also point out the main limitations and difficulties being faced for such applicability. 15

Programme: BScTE 2nd Sem. (2 Yr Prog.)

Date: 26 August, 2019 (Monday, afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4237

Course Title: Islamic History, Science and Culture

Summer Semester (2018-2019)

Time : 90 minutes

Full Marks : 50

There are 4 (four) questions. Answer any 3 (three).

Figures in the right margin indicate marks of the questions.

1. a) Discuss the role of al-Quran in the growth of historical consciousness among the Muslims. 6
 b) Analyze *ibne Khaldoun's* theory of "Influence of the Climate" in the modern perspective. 6
 c) Why *ibne Khaldoun* criticize great historians like *al-Masudi*? $4\frac{2}{3}$
2. Narrate condition of the following religion and civilization before the advent of Prophet Muhammad (PBUH):
 a) Christianity. 6
 b) Class system of the Indian civilization. $10\frac{2}{3}$
3. a) "Apparently the terms and conditions of the treaty of *Hudaibiyah* were humiliating for the Muslims, but in fact its conclusion indicated to the diplomatic foresightedness of Prophet Muhammad (PBUH)"- Explain the dictum. 6
 b) Analyze administration of Prophet Muhammad (PBUH) related to the state revenue. $10\frac{2}{3}$
4. Evaluate the following achievements of Omar (R.):
 a) Introduction of welfare systems. 6
 b) Political and constitutional reforms. $10\frac{2}{3}$

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4235

Course Title: Educational Measurement and Evaluation

Summer Semester (2018-2019)

Time: 90 min

Full Marks: 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) 'A student scored 80 on a 100-point math test. The student's test score of 80 translates to a letter grade of 'A' which reflect a statement of 'excellent' result'- Discuss how test, measurement, and evaluation concepts are used in this example. 15
- b) Differentiate between measurement and evaluation. 10
2. a) Write down the properties of measurement scales. 5
- b) Discuss advantage and disadvantage of ordinal scale. 10
- c) Four students of IUT are randomly selected and asked for their home from IUT, which was: 50 km, 90 km, 130 km, 200 km. 10
 - i. Is there an order to this data? Explain.
 - ii. Are the differences between the data values meaningful?
 - iii. Can you calculate ratios based on this data? Explain.
 - iv. Can you conclude the student with 200 km, lives 4 times as much as the distance compare to student with 50 km distance? Explain.
3. a) What is affective domain of educational objective? Give two examples of measurable learning outcomes from psychomotor domain. 10
- b) List the Bloom's Taxonomy of cognitive levels. Which level do each of the following statements apply? In light of Bloom's Taxonomy of cognitive objectives. 15
 - i. The students will memorize multiplication facts through drill and practice.
 - ii. The students will follow the scientific method to perform a science experiment.
 - iii. The students will read a short story and identify the literary elements.
 - iv. The students will ask to write a summary of the book they read that week.
 - v. The students will decide if a math word problem is good or bad by noting if there is too much, too little, or the right amount of information.
 - vi. The students will do interviews, collect photographs, and gather information to complete a biography on a family member.
4. a) What is test blueprint? Why is it important for a class teacher? Discus with examples. 10
- b) Which test format is useful to address the following learning outcomes (LOs)? Write one test item for each of the following learning outcome: 15

LO1: Given a lecture on various teaching methods, the student can list all the name of new teaching methods

LO2: The student can associate the concepts of various teaching method to identify teaching situations.

LO3: The student can explain the importance of various teaching method in a given situation

LO4: The students can differentiate between the teaching methods.

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
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DEPARTMENT OF TECHNICAL & VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4237

Course Title: Educational Measurement and Statistics

Summer Semester (2018-2019)

Time: 90 minutes

Full Marks: 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) Give an example of measure of maximum performance and measure of typical performance. Of what value is this distinction? 5
- b) What are the perceived advantages and disadvantages of fixed-choice tests related to complex-performance assessments? 12
- c) Identify the assessment type by considering the functional role in the classroom, for each of the following assessment: 8
 - (i) An end-of-course test used to assign grades
 - (ii) A test of mathematics skills on the first clay of algebra
 - (iii) An assessment in science used to assess learning progress
 - (iv) A device for observing and recording reading errors.
2. a) Identify five characteristics that distinguish a norm-referenced from a criterion-referenced test. 5
- b) Describe two testing situations for which you would use a norm-referenced test and two situations in which you would use a criterion-referenced test. 12
- c) Classify appropriate frames of references to interpret students' following classroom performances: 8
 - (i) Mary's math score placed her near the bottom of the class.
 - (ii) Chan defined 90% of the engineering terms correctly in the class.
 - (iii) Mike can identify all the parts of an engine.
 - (iv) Katie surpassed 85% of the 3rd year students on the c programming test.
3. a) Compare ordinal and interval scale with an example. 9
- b) Identify the type of scales of measure used in each of the following situations and justify by mentioning the properties of measurement scales: 16
 - (i) As you leave a restaurant, you are asked to answer a few questions regarding what you thought about the service you received.
 - (ii) When you join a weight loss group, they ask that you keep a dairy book noting your weight each week.
 - (iii) As part of a research study, you are asked to record your positive and negative emotions ranging from -10 to +10 value.

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Program: DTE, 2nd Semester

Date: 23 August 2019, (Friday, Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
 ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4239

Course Title: Principles of Technical and Vocational Education

Summer Semester (2018-2019)

Time: 90 minutes

Full Marks: 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

- 1.a) Define the term 'Vocational Education and Training (VET)'? Does the Technical Education differ from the Vocational Education? Justify your answer. 10
- b) Compare between the 'Technical and Vocational Education and Training (TVET)' and the 'General Education'. 10
- c) Define the following terms with example: i) TVET providers and ii) TVET clients. 5
- 2.a) Write a short note on 'Needs and Rationale of TVET' in the OIC countries. 10
- b) Explain the common problems of TVET Institutions in the OIC countries. How can your University support the OIC member countries to overcome these problems? 15
- 3.a) State the factors that make TVET systems different in different countries. Can a country copy a TVET system from other countries? Justify your answer. 15
- b) Explain the characteristics of Government Regulated and Market Regulated TVET System. 10
- 4.a) Differentiate among *Apprenticeship Training*, *On-the-Job Training* and *Internship Training*. 15
- b) Describe the Initial Vocational Training in *the Dual System* in Germany. 10

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANIZATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4241

Course Title: Islamic History, Science and Culture

Summer Semester (2018-2019)

Time : 90 minutes

Full Marks : 50

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) Why does al Quran encourage the Muslims to be historically conscious? 6
 b) Analyze *ibne Khaldoun's* theory of Group Mind in the modern perspective. 6
 c) Why *ibne-Miskawayh* did not include history of the early Muslims in his book *Tajaribul Umam*? $4\frac{2}{3}$

2. Narrate condition of the following religion and civilization before the advent of Prophet Muhammad (PBUH).
 a) Christianity. 6
 b) Tribal prejudice and warlike temperament of the Arabs. 10.66

3. a) "Apparently the terms and conditions of the treaty of *Hudaibiyah* were humiliating for the Muslims, but in fact its conclusion indicated to the diplomatic foresightedness of Prophet (PBUH)"- Explain your point of view regarding this dictum. 6
 b) Analyze administration of Prophet (PBUH) related to the state revenue. 10.66

4. Evaluate the role of Abu Bakr (R.) in resolving the following internal problems:
 a) Apostasy movement and denial of Zakat. 6
 b) False prophets. 10.66

Programme: BSc TVE (2 year) 2nd Sem

Date: 29 August, 2019 (Thursday, Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: HUM 4249

Course Title: Technology, Environment and Society

Summer Semester (2018-2019)

Time : 90 minutes

Full Marks : 75

There are 4 (four) questions.

Question -1 (one) is compulsory. Answer any 2 (two) from rest of the questions.

Figures in the right margin indicate marks of the questions.

1. Discuss the following terminologies of Technology, Environment and Society (Any five): 5x5=25
 i) Layers of Earth ii) Carrying capacity of an ecosystem; iii) Ecosystem;
 iv) Soil degradation; v) Green House effect; vi) Sustainable development.
 vii) Urban heat island.

2. a) What is the difference between population growth and growing population? 5+10=15
 In your opinion, will uncontrolled population growth be an environmental concern? Justify your answer.
 b) How does water pollution affect us? What steps can we take to reduce water pollution? 5+5=10

3. a) What is climate change? Name the seven theories explaining major climate change? 1+14=15
 b) How atmospheric pollution can lead to Acid Rain? What are the effects of acid rain? 5+5=10

4. a) What is Ecological succession? With the use of appropriate illustration discuss energy flow within the ecosystem. 3+7=10
 b) What is 'Biome'? Name all six types of Biomes? What are the differences between Coniferous and Polar biome? 3+6+6=15

Programme: BScEngg (CEE)2nd Sem /DTE- 2nd Sem.

Date: 27 August, 2019 (Tuesday, Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4257/ Hum 4237

Course Title: Islamic History, Science and Culture

Summer Semester (2018-2019)

Time : 90 minutes

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1.
 - a) Discuss the social and demographic changes brought by Islam to Medinan society. 10
 - b) Explain the Importance of the Charter of Madinah. 10
 - c) The first task that the Prophet Muhammad took care of when he came to Madinah was the construction of a mosque. Mention the name of this mosque and describe how it was built. 5

2.
 - a) Analyze the causes and background of the treaty of Hudaibiyah. 10
 - b) Describe the terms of the treaty. 9
 - c) Why do you think it was a great victory for Islam? 6

3.
 - a) Describe how the Prophet Muhammad (SM) started the journey of his farewell pilgrimage. 12
 - b) Analyze the farewell sermon of the Prophet Muhammad (SM). 13

4.
 - a) Write the following information regarding the caliph Abu Bakr (r): 15
 - Da'wah towards Islam
 - Hardship in the way of Da'wah.
 - b) Why do you think that Abu Bark (r) was the savior of Islam? 10

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Programme: BScEngg (CEE) 2nd Sem /DTE- 2nd Sem.

Date: 27 August, 2019 (Tuesday, Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4257/ Hum 4237
Course Title: Islamic History, Science and Culture

Summer Semester (2018-2019)

Time : 90 minutes
Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) Discuss the social and demographic changes brought by Islam to Medinan society. 10
b) Explain the Importance of the Charter of Madinah. 10
c) The first task that the Prophet Muhammad took care of when he came to Madinah was the construction of a mosque. Mention the name of this mosque and describe how it was built. 5

2. a) Analyze the causes and background of the treaty of Hudaibiyah. 10
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b) Analyze the farewell sermon of the Prophet Muhammad (SM). 13

4. a) Write the following information regarding the caliph Abu Bakr (r): 15
 - Da'wah towards Islam
 - Hardship in the way of Da'wah.
b) Why do you think that Abu Bark (r) was the savior of Islam? 10

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Programme: B.ScTE-2 Yr(4th Sem)/ 1 Yr (2nd sem) Date: 26 August, 2019 Monday, (Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination
Course No: TVE 4251
Course Title: Sociology of Education

Summer Semester (2018-2019)
Time: 90 Minutes
Full Marks : 75

There are 4 (Four) questions. Answer any 3 (Three).
Figures in the right margin indicate marks of the questions.

1. (a) What is family? What are the main function of family? 5+10=15
(b) Give the characteristics of family from dimension of sociology of Education. 10
2. (a) What is a teacher? Give the need of teaching. 2+10=12
(b) Explain the role of teacher in the society. 13
3. (a) Discuss the social function of education? 13
(b) Give the manifest functions of education. 12
4. (a) Give the relationship between Education and Society. 13
(b) Narrate the role of education for society? 12

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 4279

Course Title: Educational Technology

Summer Semester (2018-2019)

Time : 90 min

Full Marks : 50

There are 4 (four) questions. Answer any 3 (three).

Figures in the right margin indicate marks of the questions.

- 1 (a) What is meant by teaching technology? Differentiate educational technology and instructional technology. 6.66
- (b) Discuss the objectives of educational technology. 10
- 2 (a) What is multi-sensory or multimedia approach? Explain. 6.66
- (b) Discuss the scope and significance of educational technology. 10
- 3 (a) Derive the concept of teaching and learning. 6.66
- (b) Narrate the nature and characteristic of teaching-learning from dimension of educational technology. 10
- 4 (a) Write down the meaning and definition of teaching task. 6.66
- (b) Discuss phases and operation of teaching task. 10

Programme: BSc.Engg .(MCE), 4th Sem

Date: 23 August, 2019 (Friday, Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Summer Semester (2018-2019)

Course No: HUM 4417

Time : 90 minutes.

Course Title: Technology, Environment and Society

Full Marks : 75

There are 4 (four) questions.

Question -1 (one) is compulsory. Answer any 2 (two) from rest of the questions.

Figures in the right margin indicate marks of the questions.

1. Write short notes on the following topics (Any five): 5x5=25
 - i) The Earth system; ii) Soil degradation; iii) Ecological succession;
 - iv) Carrying capacity; v) Green House effect; vi) Acid precipitation; vii) Urban heat island.

2. a) What is Sustainable Development? Name the seven theories of climate change? Discuss any one of them in detail. 15
 - b) How does water pollution affect us? What steps can we take to reduce water pollution? 10

3. a) In your opinion, will uncontrolled population growth be an environmental concern? Explain your position with the help of supportive data and logical reasoning. 15
 - b) What are the major causes of air pollution? What steps can we take to reduce pollution in the atmosphere? 10

4. a) What is Ecosystem? With the use of appropriate illustration discuss energy flow within the ecosystem. 10
 - b) What is 'Biome'? Identify the main characteristics of any three types of Biomes. 15

Programme: (B.Sc.Engg & HD EEE) 4th Sem

Date: 23 August, 2019 (Friday, afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4421

Course Title: Science, Technology and Islam

Summer Semester (2018-2019)

Time : 90 Minutes

Full Marks : 50

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

- 1
 - a) Sir Thomas Arnold said, "*It is highly probable that, but for the Arabs (Muslims), modern European civilization would never have arisen at all*". Highlight the **areas of modern science and technology** where the Muslim world of the past contributed heavily. 6.66
 - b) Alessandro Bausani said, "*It is also true that during our Middle Ages the Muslim world was considered more or less like America now i.e., the world to which one had to go to perfect oneself in science and technology*". If so, why are we lagging behind? Discuss the present conditions of science and technology in the Muslim world. 10

- 2 Give short notes on the following issues:
 - a) Science and Principles of Scientific Investigations 5
 - b) Reasons behind the flourish of Islamic science and technology in the past 5
 - c) Initiatives of the modern Muslim world for reviving Islamic Science. 6.66

- 3
 - a) 'The Muslims are the pioneers of some ideas of modern **Physics**, much earlier than Newton', do you agree? Justify your answer citing examples from the glorious past of Islam. 8
8.66
 - b) 'Modern Chemistry is assuredly the byproduct of the Muslim Minds', acknowledged by all. Discuss basis of statement on Muslim contribution to **Chemistry**.

- 4
 - a) "Hundreds of Muslim scholars in their golden era contributed to the development of modern technological era", mention the Muslim discoveries in **Engineering and Technology** with special emphasis on **Mechanical Engineering** to support your answer. 8
 - b) "Many branches of **Mathematics** still bear the names of their originators". What are these branches? Define phenomenal Muslim contribution in this regard.

- Or
- "**Education and Civilization** are the byproduct of Muslim minds". Explain, from the historical perspectives. 8.66

Programme: (B.Sc.Engg & HD EEE) 4th Sem Date: 23 August, 2019 (Friday, afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4421

Course Title: Science, Technology and Islam

Summer Semester (2018-2019)

Time : 90 Minutes

Full Marks : 50

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

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 - 2 Give short notes on the following issues:
 - a) Science and Principles of Scientific Investigations 5
 - b) Reasons behind the flourish of Islamic science and technology in the past 5
 - c) Initiatives of the modern Muslim world for reviving Islamic Science. 6.66
 - 3 a) 'The Muslims are the pioneers of some ideas of modern **Physics**, much earlier than Newton', do you agree? Justify your answer citing examples from the glorious past of Islam. 8.66
 - b) 'Modern Chemistry is assuredly the byproduct of the Muslim Minds', acknowledged by all. Discuss basis of statement on Muslim contribution to **Chemistry**.
 - 4 a) "Hundreds of Muslim scholars in their golden era contributed to the development of modern technological era", mention the Muslim discoveries in **Engineering and Technology** with special emphasis on **Mechanical Engineering** to support your answer. 8
 - b) "Many branches of **Mathematics** still bear the names of their originators". What are these branches? Define phenomenal Muslim contribution in this regard.
- Or
- "**Education and Civilization** are the byproduct of Muslim minds". Explain, from the historical perspectives. 8.66

Programme: BSc. Engg. (EEE) and HDEEE, 6th Sem Date: 30 August, 2019 (Friday, Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Summer Semester (2018-2019)

Course No: HUM 4621

Time : 90 minutes

Course Title: Technology, Environment and Society

Full Marks : 75

There are 4 (four) sets of question. Answer any 3 (three).

Figures in the right margin indicate marks of the questions.

1. a) Define Environment. Explain the earth system focusing the functional role of biosphere in the system. 10
b) What is carrying capacity of an ecosystem? Briefly describe the Ecosystem Services, we get from the mother nature. 15
2. a) Uncontrolled population growth is an environmental concern. What would be your argument on this hypothesis? 10
b) What is 'Environmental Stewardship'? Mention and describe the core principles of environmental stewardship. 15
3. a) Differentiate between weather and climate. Define acid precipitation and mention causes from your understanding. 10
b) Describe briefly the key arguments of any three climate change theories with example(s). 15
4. a) What is ozone hole? Explain the process of ozone layer depletion with the chemical reactions. Mention the impacts of ozone layer depletion on human health and ecology. 15
b) Describe hydrological cycle with necessary illustration. 10

Programme: BSc. Engg (CEE), 6th Sem

Date: 27 August, 2019 (Tuesday, Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Summer Semester (2018-2019)

Course No: HUM 4659

Time : 90 minutes

Course Title: Technology, Environment and Society

Full Marks : 75

There are 4 (four) questions.

Question-1 (one) is compulsory. Answer any 2 (two) from rest of the questions.

Figures in the right margin indicate marks of the questions.

1. Write salient features of the following terminologies (Any five): 5x5=25
 - i) El-Nino
 - ii) Soil degradation,
 - iii) Ecological succession;
 - iv) Carrying capacity of an ecosystem;
 - v) Green House effect;
 - vi) Sustainable development.
 - vii) Ozone depletion.

2. a) Explain why nearly 70% of fresh water on earth is very difficult for human to use. Discuss why desalination plants are common only in oil-rich countries. 7+8=15
 - b) What is water pollution? How does water pollution affect us? Mention the source of water pollution. 2+4+4=10

3. a) In your opinion, will uncontrolled population growth be an environmental concern? Explain your position with the help of supportive data and logical reasoning. What is the difference between population growth and growing population? 10+5=15
 - b) How atmospheric pollution can lead to Acid Rain? Define the concept to improve atmospheric pollution. 5+5=10

4. a) What is Ecosystem? With the use of appropriate illustration discuss energy flow within the ecosystem. 3+7=10
 - b) What is meant by 'Biome'? What is taiga and where it is found? What are the differences between coniferous and Grassland biome? 3+6+6=15

Programme: BSc.Engg, (EEE) 8th Sem.

Date: 27 August, 2019 (Tuesday, Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: HUM 4823

Course Title: Social Studies and Accounting

Summer Semester (2018-2019)

Time : 90 Minutes.

Full Marks : 75

There are two parts; Part 'A' and Part 'B'. Use separate answer scripts for each part.

There are 3 (three) questions in each part. Answer any 2 (two) from each part.

Figures on the right margin indicate marks of the question

Part A: Social Studies

- | | | |
|-------|---|-------|
| 1. a) | What do you mean by the Family? Discuss about the different types, characteristics and the functions of a family. | 12.00 |
| b) | Brief about the concept of marriage. Explain the importance of marriage. | 6.75 |
| 2. a) | Define the term Society. Analyze the goal, objective and functions of a Society. | 12.00 |
| b) | Clarify the differences between community and association. Support your answer with example. | 6.75 |
| 3. a) | Discuss in details about the social norms and values. | 12.00 |
| b) | Brief the comprehensive features/conception of Man in Islam. | 6.75 |

Part B: Accounting

1. Neko Case decides to open a cleaning and laundry service near the local college campus that will operate as a sole proprietorship. Analyze the following transactions for the month of June in terms of their effect on the basic accounting equation. Record each transaction by increasing (+) or decreasing (-) the dollar amount of each item affected. 18.75

Transactions

- (1) Neko Case invests \$20,000 in cash to start a cleaning and laundry business on June 1.
- (2) Purchased equipment for \$5,000 paying \$3,000 in cash and the remainder due in 30 days.
- (3) Purchased supplies for \$1,200 cash.
- (4) Received a bill from College News for \$300 for advertising in the campus newspaper.
- (5) Cash receipts from customers for cleaning and laundry amounted to \$2,400.
- (6) Paid salaries of \$600 to student workers.
- (7) Billed the Lion Soccer Team \$450 for cleaning and laundry services.
- (8) Paid \$300 to College News for advertising that was previously billed in Transaction 4.
- (9) Neko Case withdrew \$1,500 from the business for living expenses.

Use the following column headings:

Transaction	Assets			Liabilities	Owner's equity			
	Cash	Accounts Receivable	Supplies	Equipment	Accounts Payable	Capital	Withdrawal	Revenues

2. a) Compute the missing amount in each category of the accounting equation. 3

	<u>Assets</u>	<u>Liabilities</u>	<u>Owner's Equity</u>
(a)	\$319,000	\$?	\$143,000
(b)	\$223,000	\$ 79,000	\$?
(c)	\$?	\$233,000	\$325,000

- b) Classify the followings into internal and external users of accounting information. 5
- i. Finance manager
 - ii. Suppliers
 - iii. Owners of the business
 - iv. Tax authority
 - v. Production manager

- c) What are the differences between accounting and book keeping? 6
- d) What do you mean by share, dividend and retained earnings? Explain with examples.
3. a) Classify the followings into manufacturing, merchandising and service business. 5
- i. Saudi Arabian Airlines
 - ii. Amazon.com, Incorporation
 - iii. PepsiCo
 - iv. American life Insurance Company
 - v. Swapno Super shop
 - vi. AB Bank Limited
 - vii. Samsung Electronics Co
 - viii. KPMG audit firm
 - ix. Google Incorporation
 - x. Facebook Incorporation
- b) Differentiate between sole proprietorship and corporation form of business in terms of number of owners, extent of liability, formation, distribution of profit, tax treatment etc. 5.75
- c) Write short notes on 8
- i. Separate entity assumption
 - ii. Time period assumption
 - iii. Going concern assumption
 - iv. Monetary unit assumption

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Programme: MScTE 2 year (2nd Semester)

Date: 30 August, 2019 (Friday, Afternoon)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Summer Semester (2018-2019)

Course No: TVE 6211

Time: 90 Minutes

Course Title: Philosophy of Technical Education

Full Marks: 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

Use the scenario below to attempt the question one, two and three.

Since most of IUT students spend majority of their school days in class, the university has decided to recruit you as Physical Education (PE) teacher to help students improve their health through physical exercises. You will have to focus on areas of either health, fitness or sports (football). PE is an educational course related to maintaining the human body through physical exercises. Facilities available for your training or teaching include: Gym, Classrooms, Football pitch and university environment. The university has given you a privilege to adopt your own philosophy in teaching or training your students.

- 1
 - a) What is reality according to naturalists? If naturalist don't believe in spiritual being, then what's their concept of mind? 6
 - b) According to Herbert Spencer, aims of education in naturalism is to enable individual to lead a "complete life", and this aim contains five (5) objectives as a guiding poster of education. Use the five (5) Spencer's naturalistic educational objective to construct your own objective for your Physical Education class [as narrated in the above scenario]. 15
 - c) Naturalist advocated for inductive method of acquiring knowledge, which is the method of science. State any four stages that are involved in an inductive method of knowledge acquisition. 4
- 2
 - a) Explain the main philosophical concept of Idealism. 5
 - b) In line with the above scenario, explain the methodology of teaching that you would adopt as an idealist physical education teacher. 10
 - c) Discuss the aim of Education in an idealistic setting. [use a diagram where necessary] 10
- 3
 - a) Discuss the main philosophical idea of pragmatism. 8
 - b) Explain why a pragmatist does not believe in setting general aims of education. Discuss the aims you would set for your physical education class as a pragmatist teacher, by using the above scenario. 10
 - c) What are the methods would a pragmatist use to teach or train first year students? Explain in the context of the above scenario. 7

- 4 a) What is philosophy? State five importance of philosophy in technical education. 7
- b) "Education is growth and the primary condition for growth is immaturity." Explain and discuss the characteristics of immaturity that are necessary for growth. 8
- c) Analyze the following definition of education in a philosophical manner:
- I. Education as acquisition of Knowledge, 5
 - II. Education as a tool to discipline the intellect. 5

Programme: M.Sc. TE 2 Yr (2nd Sem)

Date: 23 August, 2019 (Friday, afternoon)

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ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 6213

Course Title: Educational Psychology

Summer Semester (2018-2019)

Time: 90 Minutes

Full Marks: 75

There are 04 (four) questions. Answer any 3 (Three).
Figures in the right margin indicate marks of the questions.

1. (a) Define educational psychology. How is psychology related to education? 10
(b) "Psychology is the science of behaviour." Comment on this statement. 5
(c) Explain briefly the impact of heredity in terms of growth and development of the students learning. 10
2. (a) Define the meaning and concept of development. State the characteristics of development in terms of students learning. 10
(b) Discuss briefly different factors that affect the social development of students. 15
3. (a) Explain briefly different factors that affect intellectual development of individual student. 15
(b) State the chief characteristics of emotional development of a learner. 10
4. (a) State the important characteristics of personality. 8
(b) "Teachers Personality is the most determining influence on the personality development of a student." Explain this statement. 10
(c) Discuss briefly the different determinants of personality need to be considered for the development of students learning. 7

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
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DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: TVE 6233

Course Title: Online Teaching and learning

Summer Semester (2018-2019)

Time : 90 minutes

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1. a) Elaborate the following teaching contexts with examples 12
 - (i) Blended teaching,
 - (ii) Online teaching, and
 - (iii) Face-to-face (conventional) teaching.
- b) Identify five main barriers of using technology in your teaching. Provide supporting reasons of identifying each of them with examples. 13
2. a) Prepare a comparison among three learning theories in relation to online/blended teaching based on the following headings: 18
 - (i) Basic concept of each theory,
 - (ii) Implications of each theory,
 - (iii) Criticism of each theory.
- b) Draw hierarchical relationship map in cognitive learning theory of online and show how it is used for online learning. 07
3. a) Prepare a comparison considering key aspects (characteristics) among four attributes of learning such as: learner centered, knowledge centered, assessment centered, and community centered. 16
- b) Discuss student-content, and student-teacher interaction with example. 09
4. a) Teacher's choice of selecting technology depends largely on two factors, discuss these two factors. 07
- b) Clarify open technology in conducting blended/online teaching. Provide three sources (names) of open technology in teaching and learning. 08
- c) Discuss five disadvantages of using open technologies in teaching and learning via online. 10

Programme: M.Sc.TE, 2nd Semester

Date: 23 August 2019, (Friday, Afternoon)

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ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid-Semester Examination

Course No: TVE 6271

Course Title: Educational Guidance and Counselling

Summer Semester (2018-2019)

Time: 90 minutes

Full Marks: 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the question.

1. (a) State the definition of guidance given by Hamrine and Erickson. Explain how it differs from the definition given by Crow and Crow? 10
- (b) What are the three explanations of guidance? Explain them briefly. 10
- (b) Explain the adjustmental functions of guidance. 5
2. 'Guidance and counselling program need to be introduced in educational institutions to meet the varied needs of the educational systems, administration, and students. Illustrate the statement. 25
3. (a) What are the different bases of guidance approaches? Describe the functions of vocational guidance and educational guidance. 15
- (b) Write short notes on the following services usually provided at educational institutions: i) pre-admission service, and ii) orientation service. 10
4. (a) Discuss the role of (i) the counselling officer, and (ii) the role of the teacher in implementing effective guidance program in educational institutions. 20
- (b) Describe briefly the guidance and counselling service(s) provided by your own institution. 5

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Summer Semester (2018-2019)

Course No: TVE 6273

Time : 90 min

Course Title: Management and Administration in Technical and Vocational Education

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

- 1 (a) Narrate the difference between educational “management” and “administration”. 05
- (b) Explain – “Balancing effectiveness and efficiency is worth in the administrative process”. 10
- (c) List some characteristics of the TVET institutions. 10

- 2 (a) What is meant by “Changing Environment” in management? Discuss. 05
- (b) Derive managerial functions and roles in the educational administration. 10
- (c) Discuss main components of an administration. 10

- 3 (a) Comment – “Decision making is an important tool in administration”. 05
- (b) Discuss scope of “Educational planning”. 10
- (c) State the qualities of a good administrator. 10

- 4 Write notes on “historical development of administration” as stated below:
- (a) Taylor’s principles of Scientific Management 09
- (b) Maslow’s Hierarchy of Needs 08
- (c) Douglas McGregor Theory X-Y. 08